

VPDES PERMIT PROGRAM FACT SHEET

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a MAJOR, MUNICIPAL permit.

1. PERMIT NO.: VA0081256 EXPIRATION DATE: 1/27/2013
2. FACILITY NAME AND LOCAL MAILING ADDRESS FACILITY LOCATION ADDRESS (IF DIFFERENT)
- Hampton Roads Sanitation District  
Boat Harbor STP  
1436 Air Rail Ave  
Virginia Beach, VA 23455
- 300 Terminal Ave  
Newport News, VA 23607
- CONTACT AT FACILITY: CONTACT AT LOCATION ADDRESS
- NAME: Jamie Heisig-Mitchell NAME: N/A  
TITLE: Chief of Technical Services TITLE:  
PHONE: (757) 460-4220 PHONE:
3. OWNER CONTACT: (TO RECEIVE PERMIT) CONSULTANT CONTACT:
- NAME: Mr. Edward G. Henifin NAME: N/A  
TITLE: General Manager FIRM NAME:  
COMPANY NAME: HRSD ADDRESS:  
ADDRESS: 1436 Air Rail Ave  
Virginia Beach, VA 23455
- PHONE: (757) 460-2261 PHONE: ( )
4. PERMIT DRAFTED BY: DEQ, Water Permits, Regional Office
- Permit Writer(s): Deanna Austin DDA Date(s): 5/3/12-5/25/12  
Reviewed By: Mark Sauer (u) Date(s): 6/1/12
5. PERMIT ACTION:
- ( ) Issuance (X) Reissuance ( ) Revoke & Reissue ( ) Owner Modification  
( ) Board Modification ( ) Change of Ownership/Name [Effective Date: ]
6. SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:
- |               |  |
|---------------|--|
| Attachment 1  | Site Inspection Report/Memorandum  |
| Attachment 2  | Discharge Location/Topographic Map   |
| Attachment 3  | Schematic/Plans & Specs/Site Map/Water Balance   |
| Attachment 4  | TABLE I - Discharge/Outfall Description  |
| Attachment 5  | TABLE II - Effluent Monitoring/Limitations   |
| Attachment 6  | Effluent Limitations/Monitoring Rationale/Suitable<br>Data/Antidegradation/Antibacksliding |
| Attachment 7  | Special Conditions Rationale   |
| Attachment 8  | Toxics Monitoring/Toxics Reduction/WET Limit Rationale                                     |
| Attachment    | Material Stored  |
| Attachment 9  | Receiving Waters Info./Tier Determination/STORET Data/Stream<br>Modeling                   |
| Attachment 9  | 303(d) Listed Segments   |
| Attachment 10 | TABLE III(a) and TABLE III(b) - Change Sheets  |
| Attachment 11 | NPDES Industrial Permit Rating Worksheet and EPA Permit Checklist                          |
| Attachment 12 | Chronology Sheet   |
| Attachment    | Public Participation   |

**PERMIT CHARACTERIZATION:** (Check as many as appropriate)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Existing Discharge | <input checked="" type="checkbox"/> Effluent Limited                   |
| <input type="checkbox"/> Proposed Discharge            | <input checked="" type="checkbox"/> Water Quality Limited              |
| <input checked="" type="checkbox"/> Municipal          | <input type="checkbox"/> WET Limit                                     |
| <u>SIC Code #4952</u>                                  | <input type="checkbox"/> Interim Limits in Permit                      |
| <input type="checkbox"/> Industrial                    | <input type="checkbox"/> Interim Limits in Other Document              |
| <u>SIC Code(s)</u>                                     | <input type="checkbox"/> Compliance Schedule Required                  |
| <input checked="" type="checkbox"/> POTW               | <input type="checkbox"/> Site Specific WQ Criteria                     |
| <input type="checkbox"/> PVOTW                         | <input type="checkbox"/> Variance to WQ Standards                      |
| <input type="checkbox"/> Private                       | <input type="checkbox"/> Water Effects Ratio                           |
| <input type="checkbox"/> Federal                       | <input checked="" type="checkbox"/> Discharge to 303(d) Listed Segment |
| <input type="checkbox"/> State                         | <input checked="" type="checkbox"/> Toxics Management Program Required |
| <input type="checkbox"/> Publicly-Owned Industrial     | <input type="checkbox"/> Toxics Reduction Evaluation                   |
|  | <input type="checkbox"/> Storm Water Management Plan                   |
|  | <input checked="" type="checkbox"/> Pretreatment Program Required      |
|  | <input type="checkbox"/> Possible Interstate Effect                    |
|  | <input checked="" type="checkbox"/> CBP Significant Dischargers List   |

8. **RECEIVING WATERS CLASSIFICATION:** River basin information.

Outfall No: 001, 008-014

Receiving Stream: James River (Boat Harbor)  
River Mile: 2-JMS006.7-007.4  
Basin: James River (Lower)  
Subbasin: NA  
Section: 1  
Class: II  
Special Standard(s): a, z, bb  
Tidal: YES  
7-Day/10-Year Low Flow: N/A  
1-Day/10-Year Low Flow: N/A  
30-Day/5-Year Low Flow: N/A  
Harmonic Mean Flow: N/A

Outfall No(s): 003-007

Receiving Stream: Newport News Creek to James River  
River Mile: 2-NPC000.3-001.9  
Basin: James River (Lower)  
Subbasin: N/A  
Section: 1  
Class: II  
Special Standard(s): a, z, bb  
Tidal: YES  
7-Day/10-Year Low Flow: N/A  
1-Day/10-Year Low Flow: N/A  
30-Day/5-Year Low Flow: N/A  
Harmonic Mean Flow: N/A

9. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

Existing municipal discharge resulting from the discharge of treated domestic sewage.

10. **LICENSED OPERATOR REQUIREMENTS:** ☐ No ☒ Yes Class: I

11. **RELIABILITY CLASS:** I

12. SITE INSPECTION DATE: 5/6/11

REPORT DATE: 5/12/11

Performed By: Mark Kidd

SEE ATTACHMENT 1

13. DISCHARGE(S) LOCATION DESCRIPTION: Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Norfolk, North Quadrant No.: 36A SEE ATTACHMENT 2

14. ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.

Narrative: Treatment at this facility includes raw influent pumps, flow measurement, screening, grit removal, primary and secondary clarification activated sludge aeration, chlorination and dechlorination. Solids handling consists of centrifuge dewatering, floatation thickening and incineration.

SEE ATTACHMENT 3

15. DISCHARGE DESCRIPTION: Describe each discharge originating from this facility.

SEE ATTACHMENT 4

16. COMBINED TOTAL FLOW:

TOTAL: 25 MGD (for public notice)

PROCESS FLOW: \_\_\_\_\_ MGD (IND.)

NONPROCESS/RAINFALL DEPENDENT FLOW: 0.015 (Est.)

DESIGN FLOW: 25 MGD (MUN.)

17. STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:  
(Check all which are appropriate)

☒ State Water Control Law  
☒ Clean Water Act  
☒ VPDES Permit Regulation (9 VAC 25-31-10 et seq.)  
☒ EPA NPDES Regulation (Federal Register)  
☒ EPA Effluent Guidelines (40 CFR 133 or 400 - 471)  
☒ Water Quality Standards (9 VAC 25-260-5 et seq.)  
☐ Wasteload Allocation from a TMDL or River Basin Plan

18. EFFLUENT LIMITATIONS/MONITORING: Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. **EFFLUENT LIMITATIONS/MONITORING RATIONALE:** Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

**OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:**

**VARIANCES/ALTERNATE LIMITATIONS:** Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

No variances were given during this permit reissuance.

**SUITABLE DATA:** In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

**ANTIDEGRADATION REVIEW:** Provide all appropriate information/calculations for the antidegradation review.

The receiving stream has been classified as tier 1; therefore, no further review is needed. Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

**ANTIBACKSLIDING REVIEW:** Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit (i.e., limits as stringent or more stringent when compared to the previous permit).

SEE ATTACHMENT 6

20. **SPECIAL CONDITIONS RATIONALE:** Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

SEE ATTACHMENT 8

22. **SLUDGE DISPOSAL PLAN:** Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

Sludge from this facility are incinerated in one of two onsite multiple hearth incinerators. Alternative disposal plans include transport to another HRSD incinerator or hauling to an approved landfill for disposal.

23. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

The materials stored on site include sodium hypochlorite, sodium bisulfate, sodium hydroxide, ferric chloride, polymer, fuel oil, muriatic acid, gasoline and diesel fuel. The materials are either stored in buildings with drains connected to the treatment system or are in contained areas. Fuel tanks are double walled.

24. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.)]. Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 9

25. **305(b)/303(d) Listed Segments:** Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

This facility discharges directly to the James River. This receiving stream segment has been listed in Category 5 of the 305(b)/303(d) list for non-attainment of DO, Chlorophyll a, PCB in Fish Tissue, and Aquatic Life. EPA approved the Chesapeake Bay TMDL on 12/29/10. for this segment for nitrogen, phosphorus and TSS. Because an aggregated WLA exists, the permit did not receive an individual WLA. The aggregated WLA is presented as a delivered load for each of the impaired 92 Bay segments.

The Water Quality Management Plan covered under regulation 9 VAC25-720-120C provides the WLAs for which the Nutrient GP are based from.

26. **CHANGES TO PERMIT:** Use TABLE III(a) to record any changes from the previous permit and the rationale for those changes. Use TABLE III(b) to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 10

27. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET:** N/A - This is a municipal facility.

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is addressed in the water quality management plan and appears to be in conformance.

29. PUBLIC PARTICIPATION: Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit. Memo received 5/10/12.

The DSS has no comments on the application/draft permit. Memo received 6/1/12.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA has no objections to the adequacy of the draft permit. Email received 7/13/12.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Not Applicable.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and the following comment was received.

A letter was received from a neighboring citizen who was concerned about the discharge and how it could affect her home. DEQ sent a response to her. Both her comment and response are attached to this section.

PUBLIC NOTICE INFORMATION: Comment Period: Start Date 6/17/12  
End Date 7/17/12

Persons may comment in writing or by e-mail to the DEQ on the proposed issuance/reissuance/modification of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Deanna Austin at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2008 E-mail:deanna.austin@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed issuance/reissuance/modification. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2009

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Doug Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

Maria R. Nold  
Regional Director

July 11, 2012

Eumeka Sanders  
P.O. Box 676  
Newport News, VA 23607

RE: Comments on Proposed Renewal of Virginia Pollutant Discharge Elimination System (VPDES) Permit for HRSD Boat Harbor STP (Permit No. VA0081256)

Dear Ms. Sanders:

Thank you for your letter dated July 9, 2012 concerning the above referenced VPDES Permit. The VPDES Permit for the HRSD Boat Harbor STP has been drafted to protect both human health and the environment. The permit includes numerical limits for pH of between 6.0 – 9.0 s.u. per day, which matches the Virginia State Water Quality Standards. The permit also contains numerical limitations for total suspended solids, biochemical oxygen demand, total residual chlorine, bacteria in the form of both fecal coliform and enterococci and nutrients in the form of total phosphorus. Numerical limits on these pollutants prevent the Boat Harbor STP from discharging these pollutants in amounts that would impact human health or the environment, and requires the Boat Harbor STP to be in compliance with the Virginia Water Quality Standards. We feel the permit as drafted is protective of human health and the environment.

Thank you for your interest in the environmental quality of Virginia and your participation in the public comment process. If you have any questions, please feel free to contact me at 757-518-2105 or by email at [mark.sauer@deq.virginia.gov](mailto:mark.sauer@deq.virginia.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read "Mark H. Sauer".

Mark H. Sauer  
Water Permit Manager



## EUMEKA SANDERS

PO BOX 676  
Newport News, VA 23607  
(443) 205 6330  
(443) 205 6330  
Mekasandersi@aol.com



July 9, 2012

Newport News City  
2400 Washington Avenue  
Newport News, Virginia 23607

Dear Friend,

Substandard Living Conditions

Permit #VA0081256

Here is said to be substantial where as the relevance requires immediate action.

As reported on the June, twenty fourth two-thousand twelve as recorded as the first day giving Public Notice :

In Violation of:

Virginia residents:

As it pertains to rights, ordinance, regulation, policy and decisions of the locality.

Pollutant Discharge Elimination System as facilitate what's said discharged into Newport News Boat Harbor STP/ James River/ Lower James River.

The following pollutants discharged sewage by way 25 millions gallons of pollutants per day. There is 0ph applied.

Biochemical waste should be discharged properly as it pertain to the health and safety of the environment and the people.

In which 0ph is suspended. Solid Chlorine, Enterococci, Fecal Coliform and phosphorus have said to have been incinerated into the waterways.

Furthermore, The Towers is said to be unsafe and unsanitary; in violation of Substandard Living Condition; Rights and Responsibility. Hence Landlord Tenant Act , i.e. Rats, rodents and roaches.

HRSD- Boat Harbor STP

300 Terminal Avenue  
Newport News, VA 23607

700 Waterfront Circle  
Newport News, VA 23607



Sincerely,

"Encls"

A handwritten signature in black ink, followed by the date "7/10/12".

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM

Facility:	HRSD – BOAT HARBOR
County/city:	NEWPORT NEWS

VPDES NO.	VA0081256
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**DEPARTMENT OF ENVIRONMENTAL QUALITY  
WASTEWATER FACILITY  
INSPECTION REPORT  
PART 1**

Inspection date:	May 6, 2011	Date form completed:	May 12, 2011
Inspection by:	Mark R. Kidd	Inspection agency:	DEQ/TRO
Time spent:	? hours	Announced Inspection:	[ ] Yes [✓] No
Reviewed by: Kenneth T. Raum <i>KTR</i>	Photographs taken at site? [✓] Yes [ ] No		
Present at inspection:	Ken Sands, John Baker, Paul Hass, Jason Hobar		
FACILITY TYPE:		FACILITY CLASS:	
(✓) Municipal		(✓) Major	
( ) Industrial		( ) Minor	
( ) Federal		( ) Small	
( ) VPA/NDC		( ) High Priority ( ) Low Priority	
TYPE OF INSPECTION:			
Routine		Compliance/assistance/complaint	
[✓]		[ ]	
Date of previous inspection:	July 2, 2008	Agency:	DEQ/TRO
Population Served:	Connections Served		
Last Month Average: Influent March 2011	BOD <sub>5</sub> (mg/l)	171	TSS (mg/l)
		145	Flow (MGD)
		14.21	
Other:			
Last Month Average: Effluent March 2011	BOD <sub>5</sub> (mg/l)	4	TSS (mg/l)
		6.4	Flow (MGD)
		14.21	NH <sub>3</sub> (mg/l)
Other: Total P (mg/l) – 0.88			
Last Quarter Average: Effluent 1 <sup>st</sup> Q 2011	BOD <sub>5</sub> (mg/l)	5	TSS (mg/l)
		8	Flow (MGD)
		13.92	NH <sub>3</sub> (mg/l)
Other: Total P (mg/l) – 0.74			
Data verified in preface:	Updated?	NO CHANGES?	
		[✓]	
Has there been any new construction?		YES	NO
			[✓]
If yes, were the plans and specifications approved?		YES	NO
			[✓]
DEQ approval date:			
COPIES TO: (✓) DEQ/TRO; (✓) DEQ/OWCP; (✓) OWNER; ( ) OPERATOR; ( ) EPA-Region III; ( ) Other:			

PLANT OPERATION AND MAINTENANCE												
1.	Class/number of licensed operators:	I	7	II	1	III	2	IV	1	Trainee		
2.	Hours per day plant manned?	24 hrs/day										
3.	Describe adequacy of staffing	GOOD	✓	AVERAGE			POOR					
4.	Does the plant have an established program for training personnel	YES							✓	NO		
5.	Describe the adequacy of training	GOOD	✓	AVERAGE			POOR					
6.	Are preventative maintenance tasks scheduled	YES							✓	NO		
7.	Describe the adequacy of maintenance	GOOD	✓	AVERAGE			POOR					
	Does the plant experience any organic/hydraulic overloading?	YES								NO	✓	
8.	If yes, identify cause/impact on plant											
9.	Any bypassing since last inspection?	YES								NO	✓	
10.	Is the standby electrical generator operational?	YES		✓	NO			NA				
	How often is the standby generator exercised?	Monthly										
11.	Power transfer switch?	Monthly		ALARM SYSTEM?		Monthly						
12.	When was the cross connection last tested on the potable supply?											
13.	Is the STP alarm system operational?	YES		✓	NO			NA				
14.	Is sludge disposed in accordance with an approved SMP	YES		✓	NO			NA				
	Is septage received by the facility?	YES							✓	NO		
15.	Is septage loading controlled?	YES		✓	NO			NA				
	Are records maintained?	YES		✓	NO			NA				

OVERALL APPEARANCE OF FACILITY	GOOD		AVERAGE	✓	POOR	
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COMMENTS:	#11. The generator runs to provide power during centrifuge start up.
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## PLANT RECORDS

WHICH OF THE FOLLOWING RECORDS DOES THE PLANT MAINTAIN?										
1.	Operational logs for each process unit				YES	✓	NO		NA	
	Instrument maintenance and calibration				YES	✓	NO		NA	
	Mechanical equipment maintenance				YES	✓	NO		NA	
	Industrial waste contribution (municipal facilities)				YES	✓	NO		NA	
WHAT DOES THE OPERATIONAL LOG CONTAIN										
2.	Visual Observations	✓	Flow Measurement	✓	Laboratory Results			✓		
	Process Adjustments	✓	Control Calculations	✓	Other?					
COMMENTS:										
WHAT DO THE MECHANICAL EQUIPMENT RECORDS CONTAIN?										
3.	MFG. Instructions				✓	As Built Plans/specs		✓	Spare Parts Inventory	✓
	Lube Schedules				✓	Other?			Equipment/parts Suppliers	✓
COMMENTS:										
WHAT DO INDUSTRIAL WASTE CONTRIBUTION RECORDS CONTAIN? (MUNICIPAL)										
4.	Waste Characteristics				✓	Impact on Plant			✓	
	Location and Discharge Types				✓	Other?				
COMMENTS:										
WHICH OF THE FOLLOWING RECORDS ARE AT THE PLANT & AVAILABLE TO PERSONNEL?										
5.	Equipment Maintenance Records				✓	Industrial Contributor Records				
	Operational Log	✓	Sampling/testing Records		✓	Instrumentation Records			✓	
6.	Records not normally available to personnel at their location:				Industrial waste records					
7.	Were the records reviewed during the inspection						YES	✓	NO	
8.	Are records adequate and the O&M manual current?						YES	✓	NO	
9.	Are the records maintained for the required 3-year time period						YES	✓	NO	
COMMENTS:										

## SAMPLING

1.	Are sampling locations capable of providing representative samples?	YES	✓	NO	
2.	Do sample types correspond to VPDES permit requirements?	YES	✓	NO	
3.	Do sampling frequencies correspond to VPDES permit requirements?	YES	✓	NO	
4.	Does plant maintain required records of sampling?	YES	✓	NO	
5.	Are composite samples collected in proportion to flow?	YES	✓	NO	NA
6.	Are composite samples refrigerated during collection?	YES	✓	NO	NA
7.	Does the plant run operational control tests?	YES	✓	NO	NA

COMMENTS: #5. Samples are collected each hour by hand and flow paced samples composited.

## TESTING

	Who performs the testing?	Plant	✓	Central Lab	✓	Commercial Lab	
1.	Name: HRSD Central Environmental Lab						

IF THE PLANT PERFORMS ANY TESTING, PLEASE COMPLETE QUESTIONS 2-4

2.	Which total residual chlorine method is used?	Hach Pocket Colorimeter				
3.	Does plant appear to have sufficient equipment to perform required tests?	YES	✓	NO		
4.	Does testing equipment appear to be clean and/or operable?	YES	✓	NO		

COMMENTS:

## FOR INDUSTRIAL FACILITIES WITH TECHNOLOGY BASED LIMITS ONLY

1.	Is the production process as described in permit application? If no, describe changes in comments section.	YES		NO		NA	✓
2.	Are products/production rates as described in the permit application? If no list differences in comments section.	YES		NO		NA	✓
3.	Has the Agency been notified of the changes and their impact on plant effluent? Date agency notified:	YES		NO		NA	✓

COMMENTS:

PROBLEMS IDENTIFIED AT LAST INSPECTION:		CORRECTED	NOT CORRECTED
	None.		

**SUMMARY**

INSPECTION COMMENTS:	
	I arrived on site and met with Lead Operators John Baker and Paul Hass. We were joined by Chief Operator Ken Sands during the site survey. The facility is updating the aeration system for the activated sludge tanks and electrical panels throughout the facility.
COMPLIANCE RECOMMENDATIONS FOR ACTION	
	None at this time.



DEPARTMENT OF ENVIRONMENTAL QUALITY  
WASTEWATER FACILITY  
INSPECTION REPORT  
PART II

## Unit Process Evaluation Summary Sheet\*

UNIT PROCESS	APPLICABLE	COMMENTS
SEWAGE PUMPING	✓	
FLOW MEASUREMENT	✓	
SCREENING/COMMINUTION	✓	
GRIT REMOVAL	✓	
FLOW EQUALIZATION		
PONDS/LAGOONS		
OIL/WATER SEPARATOR		
PRIMARY SEDIMENTATION	✓	
ACTIVATED SLUDGE AERATION		
TRICKLING FILTERS		
ROTATING BIOLOGICAL CONTACTORS		
SEPTIC TANK/SAND FILTER / IMHOFF TANK		
SECONDARY SEDIMENTATION	✓	
RAPID MIX/FLOCCULATION		
TERTIARY SEDIMENTATION		
FILTRATION		
MICRO-SCREENING		
ACTIVATED CARBON ADSORPTION		
CHLORINATION	✓	
DECHLORINATION	✓	
OZONATION		
ULTRAVIOLET DISINFECTION		
POST AERATION		
LAND APPLICATION-EFFLUENT		
EFFLUENT/PLANT OUTFALL	✓	
SLUDGE PUMPING	✓	
FLOTATION THICKENING (DAF)	✓	
GRAVITY THICKENING		
AEROBIC DIGESTION		
ANAEROBIC DIGESTION		
LIME STABILIZATION		
CENTRIFUGATION	✓	
PRESSURE FILTRATION (SLUDGE)		
VACUUM FILTRATION		
DRYING BEDS		
THERMAL TREATMENT		
INCINERATION	✓	
COMPOSTING		
LAND APPLICATION-SLUDGE		

## STANDARD COMMENTS:

1. UNIT NEEDS ATTENTION
2. ABNORMAL INFLUENT/EFFLUENT

4. UNAPPROVED MODIFICATION OR TEMPORARY REPAIR
5. EVIDENCE OF PROCESS UPSET

3. EVIDENCE OF EQUIPMENT FAILURE

\*REFER TO INDIVIDUAL UNIT PROCESS EVALUATION FORMS

UNIT PROCESS:

SEWAGE PUMPING

										YES	NO	NA
1.	Name of station	INFLUENT PUMPING										
2.	Location (if not at STP)											
<b>FOLLOWING EQUIPMENT OPERABLE</b>												
3.	All pumps (Three screw pumps available, 1 in operation 1 in standby 1 under maintenance.)								✓			
4.	Ventilation								✓			
5.	Control equipment								✓			
6.	Sump pump										✓	
7.	Seal water system										✓	
<b>RELIABILITY CONSIDERATIONS:</b>												
8.	Classification	I	✓	II		III						
9.	Alarm system operable:								✓			
<b>ALARM CONDITIONS MONITORED</b>												
10.	High water level								✓			
11.	High liquid level in dry well										✓	
12.	Main electric power								✓			
13.	Auxiliary electric power								✓			
14.	Failure of pumps to start								✓			
15.	Test function								✓			
16.	Other:										✓	
17.	Backup for alarm system operational?								✓			
18.	Alarm signal reported to (identify):				Control Room							
		CONTINUOUS OPERABILITY PROVISIONS				Generator	✓	Portable Pump				
19.	(1) Day Storage		(2) Sources of Electricity			✓	Other:					
20.	Does the station have a bypass?								✓			
21.	Evidence of bypass in use?									✓		
22.	Can the bypass be disinfected?								✓			
23.	Can the bypass be measured?								✓			
24.	How often is the station checked?				~ every 2 hours							
<b>GENERAL CONDITION:</b>		GOOD		✓	FAIR			POOR				
Photo 2.												

COMMENTS:	
-----------	--

UNIT PROCESS:

FLOW MEASUREMENT

INFLUENT

☒

INTERMEDIATE

☐

EFFLUENT

☐

YES

NO

NA

1.	Type of measuring device	Parshall Flume						
2.	Present reading?	not obtained during site visit						
3.	Bypass channel							
4.	Bypass channel metered?							
	Return flow discharged upstream of the meter?							
5.	Identify:	Centrifuge, Incinerator Scrubber, Non-Potable water, floor drains						
6.	Device operating properly?							
7.	Date of last calibration?	4/18/2011						
	EVIDENCE OF THE FOLLOWING PROBLEMS							
	Obstruction?							
8.	Grease?							
GENERAL CONDITION:		GOOD	x	FAIR		POOR		
COMMENTS:								

INFLUENT

☐

INTERMEDIATE

☐

EFFLUENT

☒

YES

NO

NA

1.	Type of measuring device	Ultrasonic						
2.	Present reading?	not obtained during site visit						
3.	Bypass channel							
4.	Bypass channel metered?							
	Return flow discharged upstream of the meter?							
5.	Identify:							
6.	Device operating properly?							
7.	Date of last calibration?	4/18/2011						
	EVIDENCE OF THE FOLLOWING PROBLEMS:							
	Obstruction?							
8.	Grease?							
GENERAL CONDITION:		GOOD	✓	FAIR		POOR		
COMMENTS:								

UNIT PROCESS:

SCREENINGS/COMMINUTION

YES

NO

NA

1.	Number of manual units	1			
2.	Number of mechanical units	2			
3.	Number manual units in operation	0			
4.	Number of mechanical units in operation	2			
	Bypass channel provided		✓		
5.	Bypass channel in use			✓	
6.	Area adequately ventilated		✓		
7.	Alarm system for equipment failure and/or overloads		✓		
8.	Proper flow distribution between units		✓		
9.	How often are units checked and cleaned	Varies with workload, at least twice per shift.			
10.	Cycle of operation	1 min. on / 5min. off			
11.	Volume of screenings removed	March 2011 Ave.; 23 ft <sup>3</sup>			
GENERAL CONDITION:		GOOD	✓	FAIR	POOR

COMMENTS:

Screening are compacted and sent to dumpster. Photo 1.

UNIT PROCESS:

GRIT REMOVAL

YES

NO

NA

1.	Number of units	2			
2.	Number units in operation	1			
	Operation of grit collection equipment:				
3.	Manual	Time Clock	✓	Continuous Duty	
4.	Area adequately ventilated		✓		
5.	Proper flow distribution between units				✓
6.	Daily volume of grit removed	March 2011 Ave.; 13 ft <sup>3</sup>			
7.	All equipment operable		✓		
GENERAL CONDITION:		GOOD		FAIR	POOR

COMMENTS:

Photo 3.

UNIT PROCESS:	SEDIMENTATION
---------------	---------------

	PRIMARY	✓	SECONDARY		TERTIARY		YES	NO	NA	
1.	Number of units				6					
2.	Number units in operation				4					
3.	Proper flow distribution between units						✓			
4.	Sludge collection system working properly?						✓			
5.	Signs of short circuiting and/or overloads								✓	
6.	Effluent weirs level								✓	
7.	Effluent weirs clean								✓	
8.	Scum collection system working properly						✓			
9.	Influent/effluent baffle system working properly								✓	
10.	Chemical Used	Ferrous Chloride				Chemical Addition	✓			
11.	Effluent characteristics								✓	
GENERAL CONDITION:			GOOD		✓	FAIR			POOR	

COMMENTS: Units are covered and not observable.

UNIT PROCESS:	SEDIMENTATION
---------------	---------------

	PRIMARY		SECONDARY	✓	TERTIARY		YES	NO	NA	
1.	Number of units				6					
2.	Number units in operation				5					
3.	Proper flow distribution between units						✓			
4.	Sludge collection system working properly?						✓			
5.	Signs of short circuiting and/or overloads							✓		
6.	Effluent weirs level						✓			
7.	Effluent weirs clean						✓			
8.	Scum collection system working properly						✓			
9.	Influent/effluent baffle system working properly						✓			
10.	Chemical Used					Chemical Addition		✓		
11.	Effluent characteristics									
GENERAL CONDITION:			GOOD		✓	FAIR			POOR	

COMMENTS: Photos 6&7.

UNIT PROCESS:

ACTIVATED SLUDGE

								YES	NO	NA	
1.	Number of aeration units			6							
2.	Number units in operation			5							
3.	Mode of operation:		Ambient Air with mechanical mixing								
4.	Proper flow distribution between units							✓			
5.	Foam control operational							✓			
6.	Scum control present							✓			
7.	Dead spots Covered; not observable.									✓	
8.	Excessive foam Covered; not observable.									✓	
9.	Poor aeration Covered; not observable.									✓	
10.	Excessive scum Covered; not observable.									✓	
11.	Aeration equipment malfunction Covered; not observable.									✓	
12.	Other problem(s):								✓		
13.	Effluent control devices working properly (OXIDATION DITCHES)								✓		
14.	MIXED LIQUOR CHARACTERISTICS AS AVAILABLE: March 2011										
	pH (s.u.)		MLSS (mg/l)	2261	DO (mg/l)		SVI				259
	Odor		Settleability (ml/l)		922 (5 min.)		SDI				
	Color	Not observed									
15.	RETURN/WASTE SLUDGE RATES:										
	Return Rate	9.54	Waste Rate	.267	Waste Frequency	Continuous					
16.	AERATION SYSTEM CONTROL:										
	Time Clock		Manual Feed		Continuous Feed	✓					
	Other:										
GENERAL CONDITION:			GOOD		✓	FAIR			POOR		
COMMENTS:		Most of this process unit is covered for odor control and cannot be observed.									



## UNIT PROCESS: CHLORINATION

		YES	NO	NA
1.	Number of chlorinators	7		
2.	Number chlorinators in operation	2		
3.	Number of evaporators?	na		
4.	Number of evaporators in operation	na		
5.	Number chlorine contact tanks	2		
6.	Number chlorine contact tanks in operation	1		
7.	Proper flow distribution between units?			✓
<b>HOW IS CHLORINE INTRODUCED INTO THE WASTE STREAM?</b>				
8.	Perforated Diffuser		Injector w/single entry point	✓
9.	Chlorine residual in contact basin effluent (mg/l)	Not checked on this date		
10.	Applied chlorine dosage (lbs/day)	March 2011 average -406		
11.	Contact basin adequately baffled?	✓		
12.	Adequate ventilation in chlorine cylinder storage area?			✓
14.	Adequate ventilation in chlorine equipment room?	✓		
15.	Proper safety precautions used?	✓		
GENERAL CONDITION:		GOOD	✓	FAIR
				POOR

COMMENTS:

## UNIT PROCESS: DECHLORINATION

		YES	NO	NA
1.	Dechlorination chemical used?			
	Sulfur Dioxide		Bisulfite	✓
	Other:			
2.	Number of sulfonators	3		
3.	Number sulfonators in operation	1		
4.	Number of evaporators?	na		
5.	Number of evaporators in operation	na		
6.	Number contact tanks	na		
7.	Number contact tanks in operation	na		
8.	Proper flow distribution between units?			✓
<b>HOW IS CHEMICAL INTRODUCED INTO THE WASTE STREAM?</b>				
9.	Perforated Diffuser		Injector w/single entry point	x
10.	Chlorine residual in basin effluent	Not checked on this date		
11.	Applied dechlorination dosage	2.65 mg/L, 265 lbs/day Average March 2011		
12.	Control system operational?	✓		
13.	Control system adjusted?	Automatic	✓	Manual
14.	Residual analyzer?	✓		
15.	Contact basin adequately baffled?			✓
16.	Adequate ventilation in cylinder storage area?			✓
17.	Adequate ventilation in equipment room?	✓		
18.	Proper safety precautions used?	✓		
GENERAL CONDITION:		GOOD	✓	FAIR
				POOR

COMMENTS: Dechlorination applied just after discharge from the chlorine contact tank and just prior to discharge.

UNIT PROCESS:

EFFLUENT/PLANT OUTFALL

								YES	NO	NA
1.	Type of outfall	Shore Based		Submerged		✓				
TYPE IF SHORE BASED:										
2.	Wingwall	Headwall		Rip Rap		Pipe		✓		
3.	Flapper valve present?								✓	
4.	Erosion of bank area?									✓
5.	Effluent plume visible?									✓
Condition of outfall and the supporting structure?										
6.	GOOD	✓	FAIR	POOR						
FINAL EFFLUENT, EVIDENCE OF FOLLOWING PROBLEMS?										
Oil sheen?									✓	
Grease?									✓	
Sludge bar?									✓	
Turbid effluent?									✓	
Visible foam?									✓	
7.	Unusual color?								✓	

GENERAL CONDITION:	GOOD	✓	FAIR	POOR
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COMMENTS:	Final effluent observed in the chlorine contact tank. Photo 8.
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UNIT PROCESS:

CENTRIFUGATION

YES

NO

NA

1.	Number of units		4			
2.	Number units in operation		1-4			
3.	PURPOSE OF CENTRIFUGE					
	Thickening	✓	Dewatering	✓	Other:	
4.	OPERATION OF EQUIPMENT					
	Manual	✓	Automatic		Other:	
5.	Centrifuge run time		14.6 hrs/day – March 2011			
6.	Volume of influent sludge flow: (gal/min)		48			
7.	Amount of cake produced: (lbs/day)		25,500			
8.	SLUDGE SOLIDS					
	Influent (%)		Effluent (%)			
9.	Conditioning chemical fed:		Delta 601			
10.	Conditioning chemical dose:		192 lbs/ton			
11.	Centrate return location:					
12.	Signs of centrate return problems?					

GENERAL CONDITION:

GOOD

✓

FAIR

POOR

COMMENTS:

Photo 5.

UNIT PROCESS:	INCINERATION
---------------	--------------

								YES	NO	NA
1.	Method:	Multiple Hearth Furnace	✓	Fluidized Bed Incinerator						
2.	Number of units	2								
3.	Number units in operation	1								
4.	<i>Types of sludge incinerated:</i>									
	Primary	✓	Waste Activated	✓	Other:					
5.	Loading rate (wet sludge)	? lb/hr/ft <sup>2</sup>								
6.	Range of operating temperature	?								
7.	Fuel used	Nat. Gas	Amount	Avg. = 97,000 cu.ft./day						
8.	Amount of ash generated	309 cu.yd March 2011		Disposal of ash						
9.	Average number of hours of operation per week	19								

GENERAL CONDITION:	GOOD	✓	FAIR		POOR	
--------------------	------	---	------	--	------	--

COMMENTS:	
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UNIT PROCESS:

FLOTATION THICKENING (DAF)

						YES	NO	NA
1.	Number of units		2					
2.	Number units in operation		2					
SLUDGE PUMPING?								
3.	Manual	✓	Automatic		Other:			
FLOTATION AID SYSTEM PROVIDED?								
4.	Type of aid	Polymer 601		Dosage	Lbs/ton March 2011 -183			
5.	Skimmer blade sludge removal system properly operating?					✓		
6.	Sludge collection system working properly?					✓		
Is the unit used to thicken sludge other than waste activated sludge?							✓	
7.	Other sludge type							✓
8.	Signs of overloading?						✓	
PROCESS CONTROL TESTING								
Feed solids testing				%				✓
Thickened sludge solids testing				15 %				
Underflow testing				mg/L				✓
9.	Other:							
10.	Percent capture of solids				123 %			
11.	Effluent baffle system working properly?							✓

GENERAL CONDITION:	GOOD		FAIR	✓	POOR	
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COMMENTS:	Photo 4.
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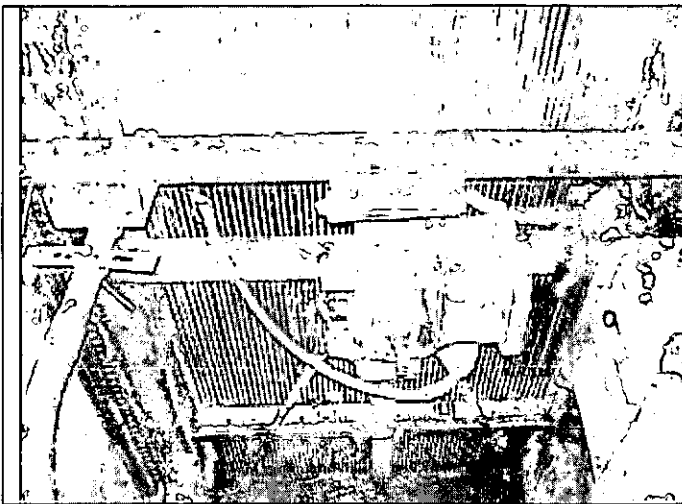


Photo 1. Bar Screen.

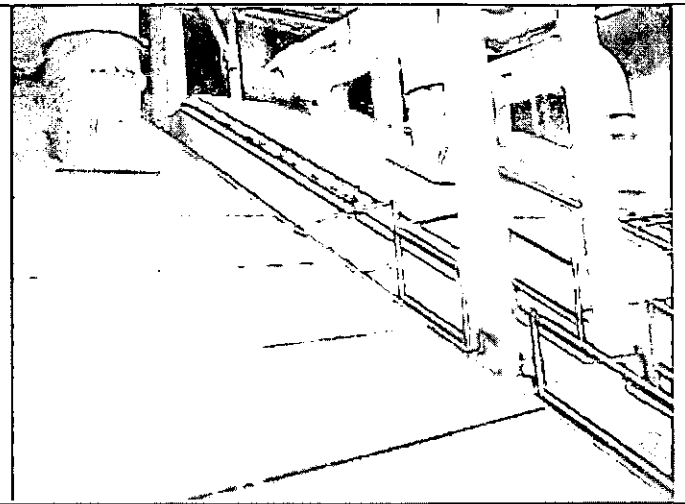


Photo 2. Screw Pumps.



Photo 3. Grit Chamber.



Photo 4. DAF unit.

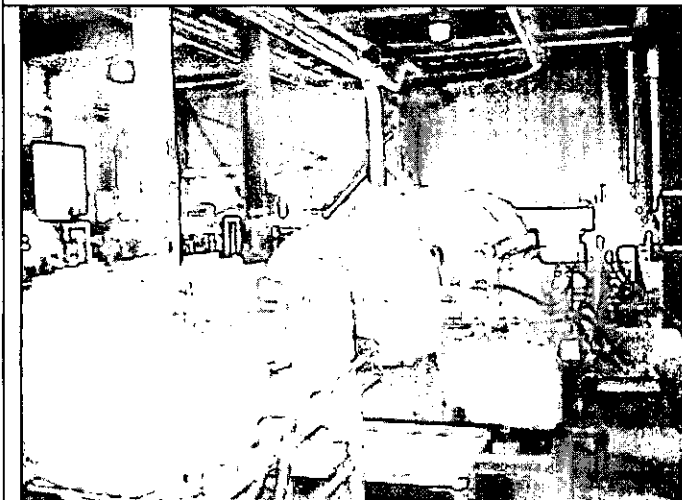


Photo 5. Centrifuge.

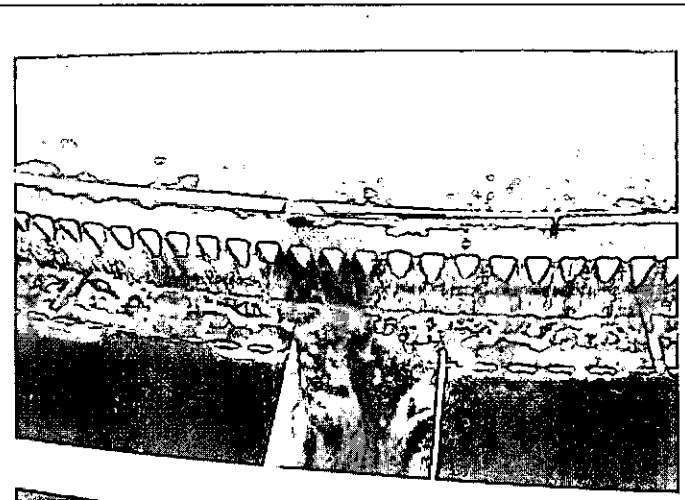


Photo 6. Secondary sedimentation effluent.

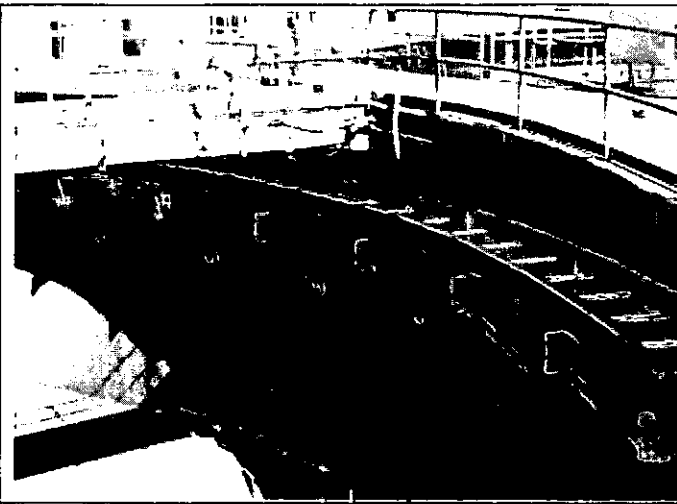


Photo 7. Updates to secondary sedimentation tanks.

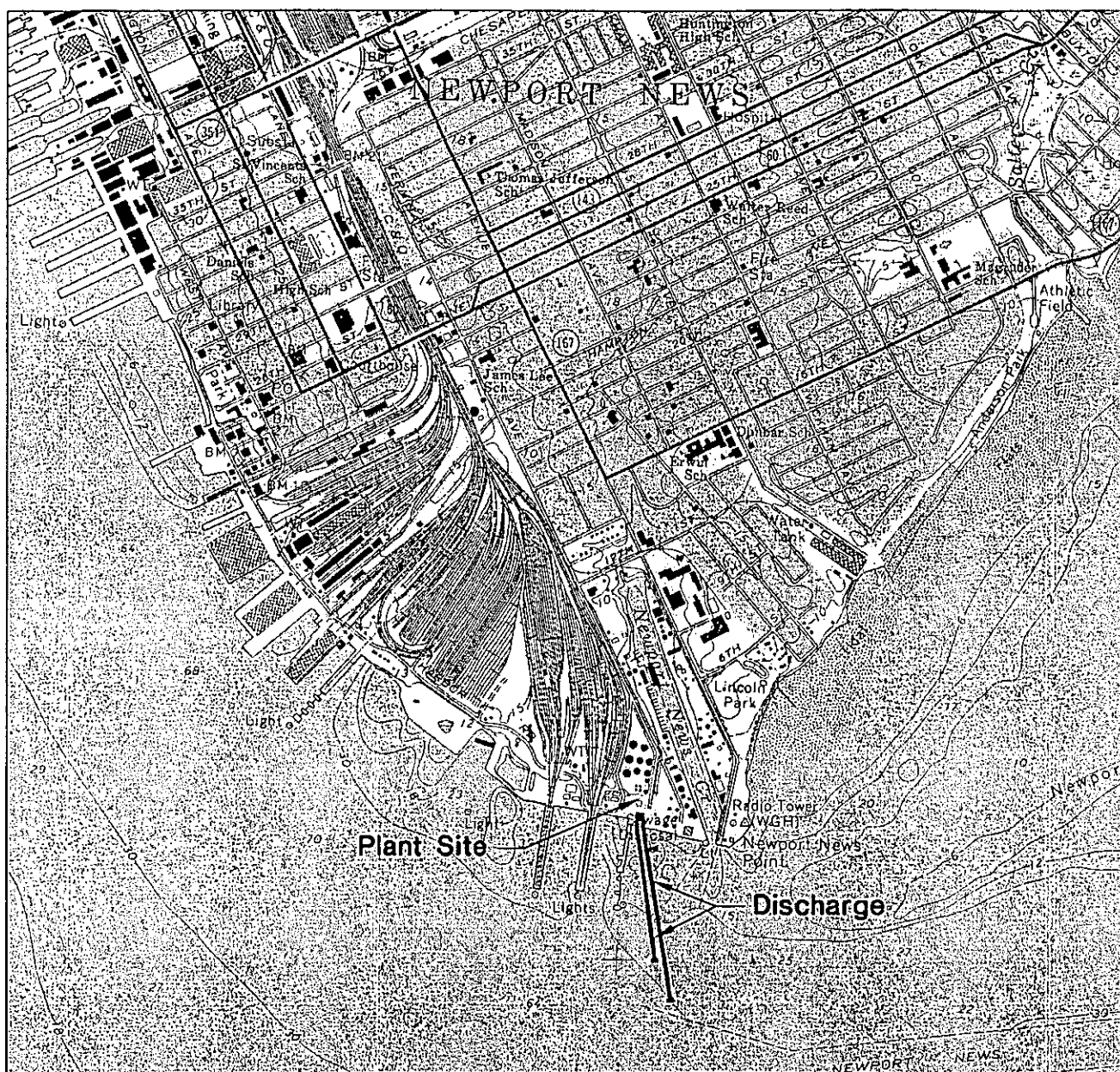


Photo 8. Discharge from chlorination/de-chlorination tank.

ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP





Location Map  
for  
Boat Harbor TP

June 2003

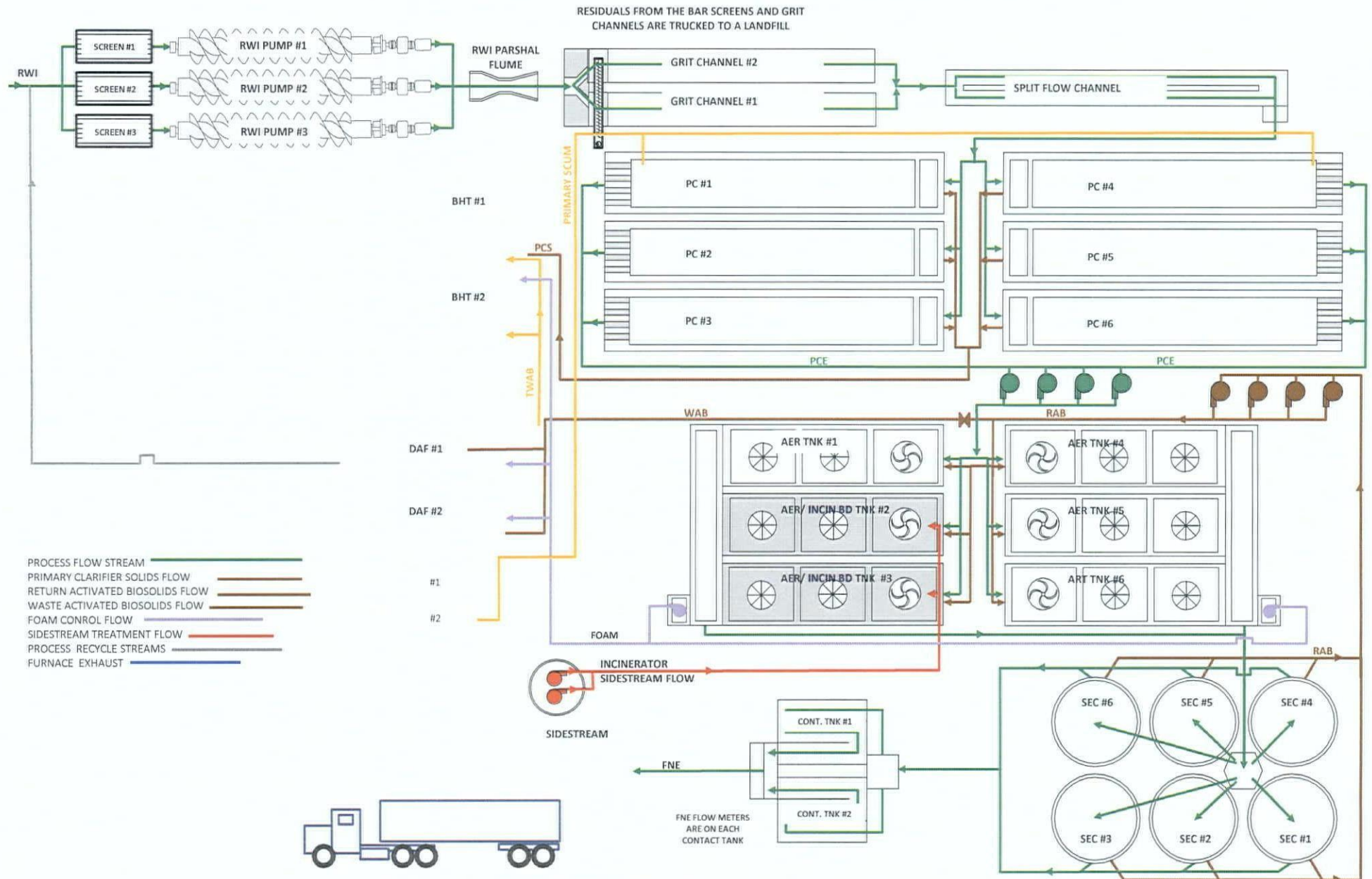
Scale: 1"-2000'

USGS Map Reference

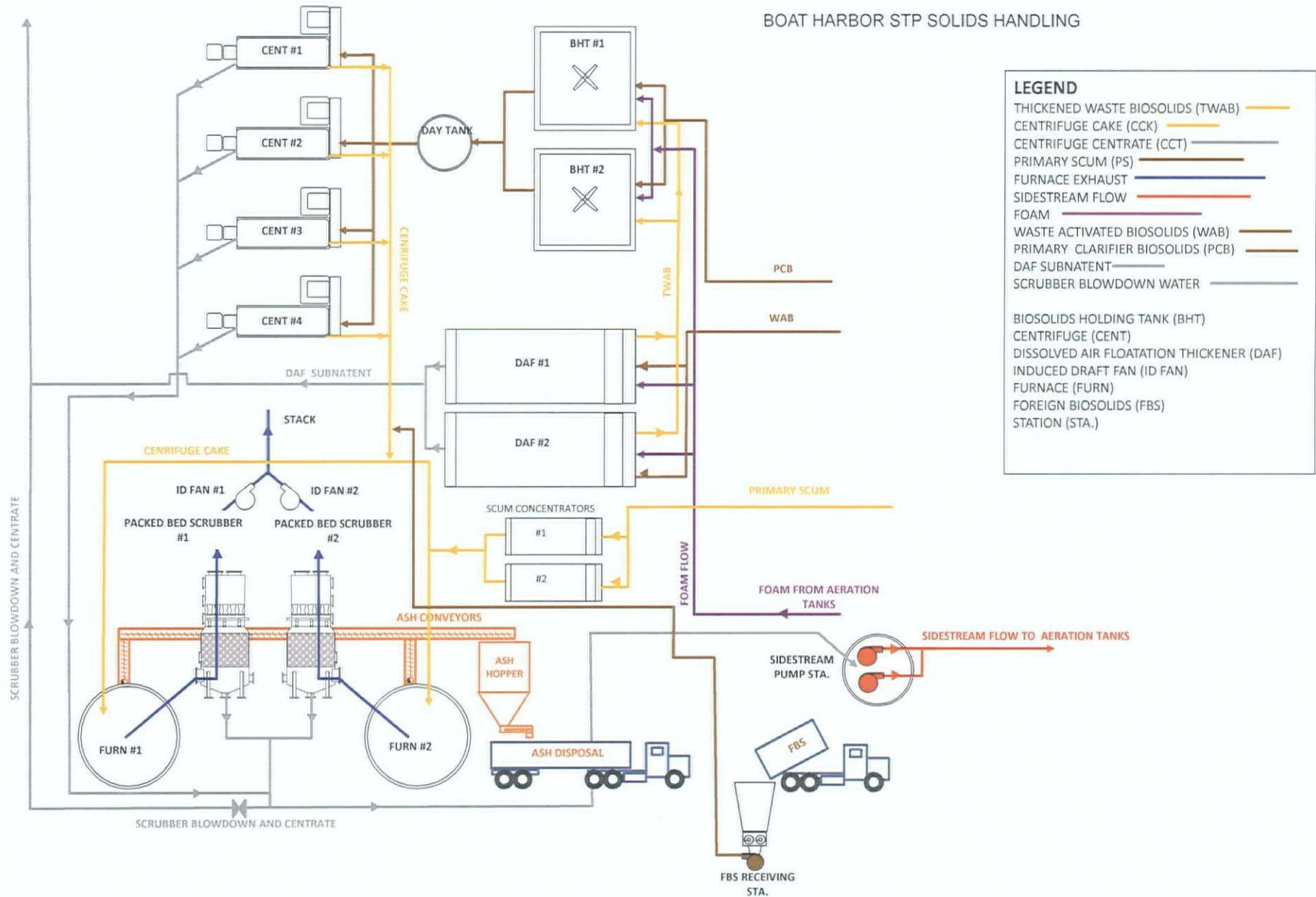
ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/  
WATER BALANCE

# BOAT HARBOR TREATMENT ST FLOW SCHEMATIC



# BOAT HARBOR STP SOLIDS HANDLING

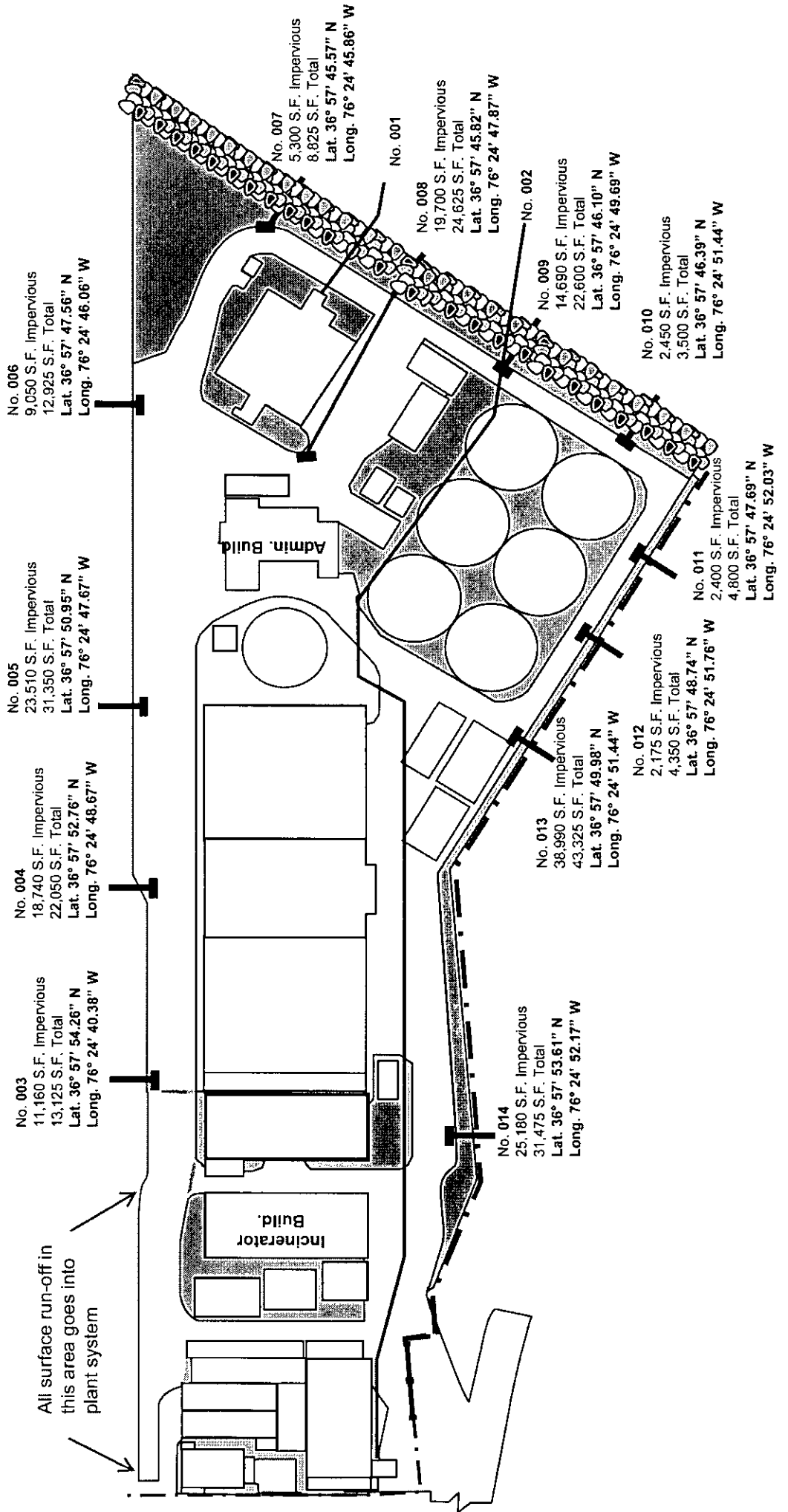


# BOAT HARBOR

## TREATMENT

### PLANT

#### STORMWATER LOCATION MAP



ATTACHMENT 4

TABLE I - DISCHARGE/OUTFALL DESCRIPTION



TABLE I

NUMBER AND DESCRIPTION OF OUTFALLS

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2)	FLOW (3)
001	36°57' 25"N 076°24' 43"W	POTW, primary treated wastewater effluent discharge	Secondary treatment provided by screening, grit removal, primary and secondary clarification, activated sludge, chlorination, and dechlorination.	25 MGD design flow
003	36°57' 54"N 076°24' 40"W	Storm Water	No treatment provided, best management practices used.	0.0009 MG
004	36°57' 53"N 076°24' 49"W	Storm Water	No treatment provided, best management practices used.	0.002 MG
005	36°57' 51"N 076°24' 48"W	Storm Water	No treatment provided, best management practices used.	0.002 MG
006	36°57' 48"N 076°24' 46"W	Storm Water	No treatment provided, best management practices used.	0.0008 MG
007	36°57' 46"N 076°24' 46"W	Storm Water	No treatment provided, best management practices used.	0.0005 MG
008	36°57' 46"N 076°24' 48"W	Storm Water	No treatment provided, best management practices used.	0.002 MG
009	36°57' 46"N 076°24' 50"W	Storm Water	No treatment provided, best management practices used.	0.001 MG
010	36°57' 46"N 076°24' 51"W	Storm Water	No treatment provided, best management practices used.	0.0002 MG
011	36°57' 48"N 076°24' 52"W	Storm Water	No treatment provided, best management practices used.	0.0003 MG
012	36°57' 49"N 076°24' 52"W	Storm Water	No treatment provided, best management practices used.	0.0002 MG
013	36°57' 50"N 076°24' 51"W	Storm Water	No treatment provided, best management practices used.	0.003 MG
014	36°57' 54"N 076°24' 52"W	Storm Water	No treatment provided best management practices used.	0.002 MG

(1) List operations contributing to flow

(2) Give brief description, unit by unit

(3) Give maximum 30-day average flow for industry and design flow for municipal

SEE ATTACHED SHEET

Boat Harbor STP VA0081256 Storm Water Application Attachment

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (ft <sup>2</sup> )	Total Area Drained (ft <sup>2</sup> )	
003	11160	13125	.0009
004	18740	22050	.002
005	23510	31350	.002
006	9050	12925	.0008
007	5300	8825	.0005
008	19700	24625	.002
009	14,690	22600	.001
010	2450	3500	.0002
011	2400	4800	.0003
012	2175	4350	.0002
013	38990	43325	.003
014	25180	31475	.002

6.0149



## ATTACHMENT 5

### TABLE II - EFFLUENT MONITORING/LIMITATIONS

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 001 DESIGN FLOW: 25 MGDOutfall Description: Municipal DischargeSIC CODE: 4952

(X) Final Limits ( ) Interim Limits Effective Dates - From: Reissuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	DESIGN FLOW MULTIPLIER	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD) [a]	3		NL	NA	NA	NL	Continuous	TI & RE**
pH (S.U.)	1		NA	NA	6.0	9.0	1/Day	Grab
BOD5 (mg/l) [c] [d]	1		30	45	NA	NA	3/Week	24-Hr. Comp
BOD5 (kg/d) [d]	1	25	2839	4258	NA	NA	3/Week	24-Hr. Comp
TSS (mg/l) [c] [d]	1		30	45	NA	NA	3/Week	24-Hr. Comp
TSS (kg/d) [d]	1	25	2839	4258	NA	NA	3/Week	24-Hr. Comp
TRC (mg/l) [b] [c]	2		0.20	1.3	NA	NA	1/Day	Grab
Total Phosphorus (mg/l)	3		NL	NA	NA	NA	1/Month	24-Hr. Comp
Total Phosphorus (mg/l) Year to date [f]	3		NL	NA	NA	NA	1/Month	Calc
Total Phosphorus (mg/l) Calendar Year [e] [f]	3		2.0	NA	NA	NA	1/Year	Calc
Fecal Coliform (n/cml) [d] [g]	2		200	NA	NA	NA	1/Week (Between 10 am & 4 pm)	Grab
Enterococci (n/cml) [d] [h]	2		35	NA	NA	NA	2/Month (Between 10 am & 4 pm)	Grab

\*\*Totalizing, Indicating &amp; Recording Equipment

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1 Year= January 1-December 31; reported for each full calendar year

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

In addition to any Total Nitrogen or Total Phosphorus concentration limits listed above, this facility has Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall included in the current Registration List under registration number VAN040090, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia.

- [a] The design flow of this treatment facility is 25 MGD. See Part I.C.5 for additional flow requirements.
- [b] See Part I.B. for additional chlorine monitoring instructions.
- [c] See Parts I.C.6 and I.C.7 for quantification levels and reporting requirements, respectively.
- [d] See Part I.C.8 for additional instructions regarding effluent monitoring frequencies.
- [e] Annual average limitation, based on a calculation of all samples collected during the calendar year.
- [f] See Part I.C.11. for additional instructions regarding Total Phosphorus
- [g] Fecal Coliform monthly average is calculated as a geometric mean.
- [h] Enterococci monthly average is calculated as a geometric mean. Samples must be taken at least 7 days apart.

- 2. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- 3. At least 85% removal for BOD and TSS must be attained for this effluent.

The basis for the limitations codes are:

- 1. Technology (e.g., Federal Effluent Guidelines)
- 2. Water Quality Standards (9 VAC 25-260 et. seq.)
- 3. Best Professional Judgment

TABLE II - STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALLS # 003-014

Outfall Description: Stormwater Not Associated With Regulated Industrial Activity

SIC CODE: 4952

THESE OUTFALLS SHALL CONTAIN STORM WATER RUNOFF NOT ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS.

**No exposure status has been given to these outfalls.**

TABLE II - MUNICIPAL MINOR EFFLUENT LIMITATIONS

Attachment 5 continued

Final Chlorine Limitations Effective Dates - From: Permit Issuance

To: Permit Expiration

TRC **	AFTER CL2 CONTACT TANK (Dechlor. Required)			AFTER DECHLORINATION		AFTER CL2 CONTACT TANK (Dechlor. Not Required)				
	MIN.	EXC.	INST. MIN.	WKLY AVG.	INST. MAX.	PERMIT RANGE	EXC.	REPORT- ING RANGE	EXC.	TECH. MAX.
a) Non-Detect. Dechlor. Required	---	---	---	---	---	NA	NA	NA	NA	NA
b) Detect. Dechlor. Required	<b>0.80 mg/l</b>	<b>36</b>	<b>0.80 mg/l*</b>	<b>1.3 mg/l</b>	---	NA	NA	NA	NA	NA
c) No Dechlor.	NA	NA	NA	NA	NA	---	---	---	---	---

\* Reporting is required when 3 or more consecutive readings are  $<0.80$  mg/l or when the TRC is  $<0.1$  mg/l.

\*\* --Chlorine mass balance  $C_w$  (W for Tidal systems): check one

\_\_\_ a)  $C_w < 0.1$  mg/l [dechlor. required, non-detectable format]

X b)  $0.1 \text{ mg/l} \leq C_w < 2.0$  mg/l (2.5 mg/l for PWS, Shellfish waters) [dechlor. required, detectable format]

\_\_\_ c)  $C_w > 2.0$  mg/l (2.5 mg/l for PWS, Shellfish waters) [dechlor. not required, include a restrictive technology max. value]

The design flow of this treatment facility is 25 MGD.

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

See Part I.B. for additional TRC limitations.

ATTACHMENT 6

EFFLUENT LIMITATIONS/MONITORING  
RATIONALE/SUITABLE DATA/  
ANTIDegradation/ANTIBACKSLIDING

HRSD Boat Harbor STP  
Rationale For Parameters, Limitations, And Sampling Requirements  
Outfall 001

**Flow:** No limit, monitoring is required with continuous, totalizing, indicating or recording equipment. This based on the VPDES Permit Manual, and is standard for sanitary wastewater plants with discharges greater than 2 MGD. The design flow of 25 MGD is the baseline for the 95% design flow capacity notification.

**pH:** Minimum limit of 6.0 and maximum of 9.0 S.U. These limits are based on Federal Effluent Guidelines (40 CFR 133.102) and Water Quality Standards in 9 VAC 25-260-50, which limits pH to the range above for coastal waters of the State. Monitoring is a daily grab sample and is standard for sanitary WW plants with discharges greater than 2 MGD.

**Biochemical Oxygen Demand:** Monthly average of 30 mg/l and 2839 kg/day and a weekly average of 45 mg/l and 4258 kg/day. This is based on Federal Effluent Guidelines (40 CFR 133.102) which sets the limits for secondary WW plants. Loading limits are in whole numbers based upon the latest DEQ significant figures guidance (06-2016). Monitoring required is a 24 hour composite, 3 days a week. The frequency is based upon previous permit reissuances where DEQ guidance document 98-2005 was used to decrease the monitoring frequency to 3 days/week. This will be carried forward for this reissuance.

**Total Suspended Solids:** Monthly average of 30 mg/l and 2839 kg/day and a weekly average of 45 mg/l and 4258 kg/day. This is based on Federal Effluent Guidelines (40 CFR 133.102) which sets the limits for secondary WW plants. Loading limits are in whole numbers based upon the latest DEQ significant figures guidance (06-2016). Monitoring required is a 24 hour composite, 3 days a week. The frequency is based upon previous permit reissuances where DEQ guidance document 98-2005 was used to decrease the monitoring frequency to 3 days/week. This will be carried forward for this reissuance.

**Total Residual Contact Chlorine:** Minimum limit after contact time is 0.80 mg/l with 36 exceptions. This value was determined from the HRSD Chlorine Reduction Test which was approved by DEQ in February 1997. In addition, it follows the requirements of the VPDES permit manual. These process monitoring limits are believed necessary to ensure proper disinfection. Monitoring required is a grab sample once every two hours. This is based on the VPDES Permit Manual and is standard for municipal discharges of > 2.0 MGD to nutrient enriched waters.  
A special condition requires reporting if the chlorine concentration falls below 0.80 mg/l or chlorination is lost(<0.10 mg/l).

**Final Total Residual Chlorine:** A weekly average of 1.3 mg/l. A monthly average of 0.20 mg/l. This is a technology based limit following guidance document 00-2011 and is carried forward from the current permit. Monitoring is required once/day by grab sample. The frequency is based on the VPDES permit manual and is standard for municipal discharges of >2.0 MGD.

**Fecal Coliform:** Monthly average of 200 n/cml. This is based on Water Quality Standards (9 VAC 25-260-160) and is believed protective of instream standards. Monitoring required is a grab sample once a week. The VPDES Manual allows reduction to this frequency based on long term average discharge values in relation to the monthly average limit. Current guidance requires fecal coliform monitoring in salt or transition waters if the discharge is to shellfish waters. BPJ determines that this frequency is adequate to determine compliance with the standard.

**Enterococci:** A monthly average limit of 35 n/cml is included per water quality standards. Sampling is required 2/Month to be calculated as a geometric mean. Samples must be taken at least 7 days apart. This is carried forward from the current permit. Enterococci was added at the time of the last permit reissuance due to Enterococci monitoring becoming an issue that EPA addressed in late 2007/early 2008.

**Total Phosphorus Calendar Year** An annual average concentration limit of 2.0 mg/l is placed in the permit with monitoring on an annual basis. Additional nutrient monitoring and reporting is covered under the General VPDES Watershed Permit for Total Nitrogen and Total Phosphorus. The Boat Harbor HRSD facility is covered under VAN040090. On 5/16/07 guidance document 07-2008 was released by DEQ Central Office for the implementation of the nutrient general permit in relation to the individual permit. The 2.0 mg/l limit is carried forward to the reissued permit.

**Total Phosphorus Year-to-Date** There is no limit for the monthly average TP Year-to-date parameter. This parameter was added to the permit in accordance with guidance document 07-2008. Reporting is 1/M and is a calculation. Data for this parameter is collected in accordance with the VPDES permit VAN040090 for the James River Watershed held by HRSD.

**Total Phosphorus** There is no limit for the monthly average phosphorus parameter. This parameter was added to the permit in accordance with guidance document 07-2008. Reporting is 1/M. Data for this parameter is collected in accordance with the VPDES permit VAN040090 for the James River Watershed. Reporting for this parameter is required in the individual permit (IP) because the annual concentration limits is contained in the IP. All data used to calculate and determine compliance with the limit in the IP needs to be in the same document and reported on the same form as the limit.



## Water Quality Standards Reasonable Potential

Nickel and Ammonia had a quantifiable concentration for the data gathered for the 2012 application. However, these data points were significantly below the most limiting wasteload allocations found in the attached wasteload allocation analysis. No limits were needed for these parameters.

All other water quality parameters reported on Form 2A were below the quantification levels. No additional limits are needed at this time.

## Mixing Zone Analysis

A dilution study was submitted for this facility in 1998. The dilution study was approved by central office at the time of submittal. The acute dilution ratio is 61:1 and the chronic ratio is 267:1.

## Stormwater

Outfalls 003-014 are discharges of stormwater from the plant (industrial) area. HRSD submitted stormwater sample data from one outfall located at the Boat Harbor HRSD plant ( outfall 007 ). It is HRSD's position that this data represents all the stormwater outfall discharges for this plant site.

HRSD has met the requirements for industrial "no exposure", thereby only discharging stormwater not associated with an industrial activity. The Stormwater Management Condition has been removed from the permit. The "no exposure" certification form is attached to the section.

## Outfall 002

Outfall 002 is described in the permit application as an outfall that received no treatment and is therefore considered a bypass. As such, it will not be included in the permit under part I Limitations or Special Conditions. Discharges from Outfall 002 must meet requirements in the Part U and other appropriate parts of the Standard Conditions found in Part II of the permit. Outfall 002 was damaged during construction at the plant and is schedule to be no longer available for use by the end of 2012.

**VIRGINIA DEQ NO EXPOSURE CERTIFICATION  
FOR EXCLUSION FROM VPDES STORM WATER PERMITTING**

Submission of this **No Exposure Certification** constitutes notice that the entity identified below does not require permit authorization for its storm water discharges associated with industrial activity under the VPDES Permit Program due to the existence of a condition of **No Exposure**.

A condition of **No Exposure** exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the No Exposure exclusion. In addition, the exclusion from VPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the No Exposure exclusion.

By signing and submitting this No Exposure Certification form, the entity below is certifying that a condition of No Exposure exists at its facility or site, and is obligated to comply with the terms and conditions at 9 VAC 25-31-120 E (the VPDES Permit Regulation).

Please Type or Print All Information. ALL INFORMATION ON THIS FORM MUST BE PROVIDED.

**1. Facility Operator Information**

Name: Hampton Roads Sanitation District

Mailing Address: 1436 Air Rail Avenue

City: Virginia Beach State: VA Zip: 23455 Phone: 757-460-2261

**2. Facility/Site Location Information**

Facility Name: Boat Harbor

Address: 300 Terminal Avenue

City: Newport News State: VA Zip: 23607

County Name: \_\_\_\_\_

Latitude: 36 57' 45" Longitude: 76 24' 45"

**3. Was the facility or site previously covered under a VPDES storm water permit?** Yes ☒ No ☐

If "Yes", enter the VPDES permit number: VA0081256

**4. SIC/Activity Codes:** Primary: 4952 Secondary (if applicable): \_\_\_\_\_

**5. Total size of facility/site associated with industrial activity:** 5.34 acres

**6. Have you paved or roofed over a formerly exposed pervious area in order to qualify for the No Exposure exclusion?** Yes ☐ No ☒

If "Yes", please indicate approximately how much area was paved or roofed. Completing this question does not disqualify you for the No Exposure exclusion. However, DEQ may use this information in considering whether storm water discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

Less than one acre ☐ One to five acres ☐ More than five acres ☐



## 7. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? (Please check either "Yes" or "No" in the appropriate box.) If you answer "Yes" to any of these questions (1) through (11), you are not eligible for the No Exposure exclusion.

	Yes	No
(1) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Materials or residuals on the ground or in storm water inlets from spill/leaks	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) Materials or products from past industrial activity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) Material handling equipment (except adequately maintained vehicles)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5) Materials or products during loading/unloading or transporting activities	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6) Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to storm water does not result in the discharge of pollutants)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(7) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(8) Materials or products handled/stored on roads or railways owned or maintained by the discharger	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(9) Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(10) Application or disposal of process wastewater (unless otherwise permitted)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(11) Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the storm water outflow	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 8. Certification Statement

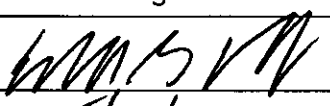
I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of no exposure and obtaining an exclusion from VPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under 9 VAC 25-31-120 E 2).

I understand that I am obligated to submit a No Exposure Certification form once every five years to the Department of Environmental Quality and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the Department, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under a VPDES permit prior to any point source discharge of storm water associated with industrial activity from the facility.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

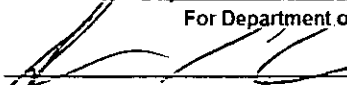
Print Name: Edward G. Henifin, P.E.

Print Title: General Manager

Signature: 

Date: 5/2/2012

For Department of Environmental Quality Use Only

Accepted/Not Accepted by: 

Date: 5/25/12

Permit No	Parameter Description	QTYAVG	QTYMAX	CONCMIN	CONCAVG	CONCMAX	Start Date	End Date
VA0081256	FLOW	12.74	14.59				1-Feb-08	29-Feb-08
VA0081256	PH			6.6		7.2	1-Feb-08	29-Feb-08
VA0081256	BOD5	413	571		9	12	1-Feb-08	29-Feb-08
VA0081256	TSS	452	489		9.4	10	1-Feb-08	29-Feb-08
VA0081256	COLIFORM, FECAL				55		1-Feb-08	29-Feb-08
VA0081256	TP				0.64		1-Feb-08	29-Feb-08
VA0081256	CL2, TOTAL CONTACT			0.11			1-Feb-08	29-Feb-08
VA0081256	CL2, TOTAL FINAL				0.0041	0.017	1-Feb-08	29-Feb-08
VA0081256	TP YTD				0.60		1-Feb-08	29-Feb-08
VA0081256	FLOW	12.68	17.82				1-Mar-08	31-Mar-08
VA0081256	PH			6.7		7.2	1-Mar-08	31-Mar-08
VA0081256	BOD5	436	790		9	18	1-Mar-08	31-Mar-08
VA0081256	TSS	326	370		6.8	7.5	1-Mar-08	31-Mar-08
VA0081256	COLIFORM, FECAL				4		1-Mar-08	31-Mar-08
VA0081256	TP				0.77		1-Mar-08	31-Mar-08
VA0081256	CL2, TOTAL CONTACT			0.02			1-Mar-08	31-Mar-08
VA0081256	CL2, TOTAL FINAL				0.0048	<QL	1-Mar-08	31-Mar-08
VA0081256	TP YTD				0.7		1-Mar-08	31-Mar-08
VA0081256	FLOW	15.51	26.90				1-Apr-08	30-Apr-08
VA0081256	PH			6.6		7.1	1-Apr-08	30-Apr-08
VA0081256	BOD5	730	951		12	17	1-Apr-08	30-Apr-08
VA0081256	TSS	412	598		6.7	7.8	1-Apr-08	30-Apr-08
VA0081256	COLIFORM, FECAL				40		1-Apr-08	30-Apr-08
VA0081256	TP				0.81		1-Apr-08	30-Apr-08
VA0081256	CL2, TOTAL CONTACT			0.81			1-Apr-08	30-Apr-08
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Apr-08	30-Apr-08
VA0081256	TP YTD				0.69		1-Apr-08	30-Apr-08
VA0081256	FLOW	12.73	16.70				1-May-08	31-May-08
VA0081256	PH			6.8		7.3	1-May-08	31-May-08
VA0081256	BOD5	701	1485		14	29	1-May-08	31-May-08
VA0081256	TSS	351	515		7.2	10	1-May-08	31-May-08
VA0081256	COLIFORM, FECAL				14		1-May-08	31-May-08
VA0081256	TP				0.89		1-May-08	31-May-08
VA0081256	CL2, TOTAL CONTACT			0.68			1-May-08	31-May-08
VA0081256	CL2, TOTAL FINAL				0.024	0.066	1-May-08	31-May-08
VA0081256	TP YTD				0.73		1-May-08	31-May-08
VA0081256	FLOW	11.43	12.67				1-Jun-08	30-Jun-08
VA0081256	PH			7.0		7.6	1-Jun-08	30-Jun-08
VA0081256	BOD5	270	474		6	11	1-Jun-08	30-Jun-08
VA0081256	TSS	158	211		3.6	4.9	1-Jun-08	30-Jun-08
VA0081256	COLIFORM, FECAL				12		1-Jun-08	30-Jun-08
VA0081256	TP				0.84		1-Jun-08	30-Jun-08
VA0081256	CL2, TOTAL CONTACT			0.80			1-Jun-08	30-Jun-08
VA0081256	CL2, TOTAL FINAL				0.0070	0.016	1-Jun-08	30-Jun-08
VA0081256	TP YTD				0.75		1-Jun-08	30-Jun-08
VA0081256	FLOW	10.28	12.09				1-Jul-08	31-Jul-08
VA0081256	PH			6.9		7.5	1-Jul-08	31-Jul-08
VA0081256	BOD5	326	350		8	9	1-Jul-08	31-Jul-08
VA0081256	TSS	178	193		4.5	4.9	1-Jul-08	31-Jul-08
VA0081256	COLIFORM, FECAL				8		1-Jul-08	31-Jul-08
VA0081256	TP				1.1		1-Jul-08	31-Jul-08
VA0081256	ENTEROCOCCI				1		1-Jul-08	31-Jul-08
VA0081256	CL2, TOTAL CONTACT			0.79			1-Jul-08	31-Jul-08
VA0081256	CL2, TOTAL FINAL				0.024	0.031	1-Jul-08	31-Jul-08
VA0081256	TP YTD				0.80		1-Jul-08	31-Jul-08
VA0081256	FLOW	10.55	14.53				1-Aug-08	31-Aug-08
VA0081256	PH			7.0		7.5	1-Aug-08	31-Aug-08
VA0081256	BOD5	257	354		6	9	1-Aug-08	31-Aug-08
VA0081256	TSS	207	427		5.0	9.6	1-Aug-08	31-Aug-08
VA0081256	COLIFORM, FECAL				20		1-Aug-08	31-Aug-08
VA0081256	TP				1.0		1-Aug-08	31-Aug-08
VA0081256	ENTEROCOCCI				1		1-Aug-08	31-Aug-08
VA0081256	CL2, TOTAL CONTACT			0.76			1-Aug-08	31-Aug-08
VA0081256	CL2, TOTAL FINAL				0.030	0.071	1-Aug-08	31-Aug-08

VA0081256	TP YTD				0.83		1-Aug-08	31-Aug-08
VA0081256	FLOW	11.47	20.41				1-Sep-08	30-Sep-08
VA0081256	PH			6.9		7.6	1-Sep-08	30-Sep-08
VA0081256	BOD5	226	408		5	7	1-Sep-08	30-Sep-08
VA0081256	TSS	359	991		6.9	17	1-Sep-08	30-Sep-08
VA0081256	COLIFORM, FECAL				14		1-Sep-08	30-Sep-08
VA0081256	TP				1.3		1-Sep-08	30-Sep-08
VA0081256	ENTEROCOCCI				1		1-Sep-08	30-Sep-08
VA0081256	CL2, TOTAL CONTACT			0.14			1-Sep-08	30-Sep-08
VA0081256	CL2, TOTAL FINAL				0.0090	<QL	1-Sep-08	30-Sep-08
VA0081256	TP YTD				0.88		1-Sep-08	30-Sep-08
VA0081256	FLOW	11.07	015.43				1-Oct-08	31-Oct-08
VA0081256	PH			7.0		7.4	1-Oct-08	31-Oct-08
VA0081256	BOD5	153	133		4	3	1-Oct-08	31-Oct-08
VA0081256	TSS	211	216		5.0	5.2	1-Oct-08	31-Oct-08
VA0081256	COLIFORM, FECAL				10		1-Oct-08	31-Oct-08
VA0081256	TP				1.0		1-Oct-08	31-Oct-08
VA0081256	ENTEROCOCCI				4		1-Oct-08	31-Oct-08
VA0081256	CL2, TOTAL CONTACT			0.61			1-Oct-08	31-Oct-08
VA0081256	CL2, TOTAL FINAL				0.027	0.10	1-Oct-08	31-Oct-08
VA0081256	TP YTD				0.90		1-Oct-08	31-Oct-08
VA0081256	FLOW	12.44	16.93				1-Nov-08	30-Nov-08
VA0081256	PH			7.1		7.4	1-Nov-08	30-Nov-08
VA0081256	BOD5	185	253		4	5	1-Nov-08	30-Nov-08
VA0081256	TSS	298	483		6.2	9.9	1-Nov-08	30-Nov-08
VA0081256	COLIFORM, FECAL				21		1-Nov-08	30-Nov-08
VA0081256	TP				0.73		1-Nov-08	30-Nov-08
VA0081256	ENTEROCOCCI				4		1-Nov-08	30-Nov-08
VA0081256	CL2, TOTAL CONTACT			0.90			1-Nov-08	30-Nov-08
VA0081256	CL2, TOTAL FINAL				0.014	0.056	1-Nov-08	30-Nov-08
VA0081256	TP YTD				0.88		1-Nov-08	30-Nov-08
VA0081256	FLOW	14.79	26.00				1-Dec-08	31-Dec-08
VA0081256	PH			6.6		7.8	1-Dec-08	31-Dec-08
VA0081256	BOD5	333	501		6	8	1-Dec-08	31-Dec-08
VA0081256	TSS	516	683		9.3	12	1-Dec-08	31-Dec-08
VA0081256	COLIFORM, FECAL				14		1-Dec-08	31-Dec-08
VA0081256	TP				0.79		1-Dec-08	31-Dec-08
VA0081256	ENTEROCOCCI				2		1-Dec-08	31-Dec-08
VA0081256	CL2, TOTAL CONTACT			0.070			1-Dec-08	31-Dec-08
VA0081256	CL2, TOTAL FINAL				0.0087	0.023	1-Dec-08	31-Dec-08
VA0081256	TP YTD				0.87		1-Dec-08	31-Dec-08
VA0081256	TP Annual Avg				0.87		1-Dec-08	31-Dec-08
VA0081256	FLOW	13.43	15.56				1-Jan-09	31-Jan-09
VA0081256	PH			6.8		7.3	1-Jan-09	31-Jan-09
VA0081256	BOD5	217	256		4	5	1-Jan-09	31-Jan-09
VA0081256	TSS	316	521		6.2	10	1-Jan-09	31-Jan-09
VA0081256	COLIFORM, FECAL				7		1-Jan-09	31-Jan-09
VA0081256	TP				0.83		1-Jan-09	31-Jan-09
VA0081256	ENTEROCOCCI				2		1-Jan-09	31-Jan-09
VA0081256	CL2, TOTAL CONTACT			0.87			1-Jan-09	31-Jan-09
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jan-09	31-Jan-09
VA0081256	TP YTD				0.83		1-Jan-09	31-Jan-09
VA0081256	FLOW	11.89	13.93				1-Feb-09	28-Feb-09
VA0081256	PH			6.7		7.4	1-Feb-09	28-Feb-09
VA0081256	BOD5	206	225		5	5	1-Feb-09	28-Feb-09
VA0081256	TSS	240	293		5.4	6.2	1-Feb-09	28-Feb-09
VA0081256	COLIFORM, FECAL				4		1-Feb-09	28-Feb-09
VA0081256	TP				0.66		1-Feb-09	28-Feb-09
VA0081256	ENTEROCOCCI				1		1-Feb-09	28-Feb-09
VA0081256	CL2, TOTAL CONTACT			.99			1-Feb-09	28-Feb-09
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Feb-09	28-Feb-09
VA0081256	TP YTD				0.74		1-Feb-09	28-Feb-09
VA0081256	FLOW	18.71	27.62				1-Mar-09	31-Mar-09
VA0081256	PH			6.8		7.2	1-Mar-09	31-Mar-09
VA0081256	BOD5	395	479		6	6	1-Mar-09	31-Mar-09

VA0081256	TSS	681	929		9.6	12	1-Mar-09	31-Mar-09
VA0081256	COLIFORM, FECAL				6		1-Mar-09	31-Mar-09
VA0081256	TP				0.58		1-Mar-09	31-Mar-09
VA0081256	ENTEROCOCCI				1		1-Mar-09	31-Mar-09
VA0081256	CL2, TOTAL CONTACT			0.66			1-Mar-09	31-Mar-09
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Mar-09	31-Mar-09
VA0081256	TP YTD				0.69		1-Mar-09	31-Mar-09
VA0081256	FLOW	14.39	18.85				1-Apr-09	30-Apr-09
VA0081256	PH			6.7		7.8	1-Apr-09	30-Apr-09
VA0081256	BOD5	241	288		4	5	1-Apr-09	30-Apr-09
VA0081256	TSS	273	303		5.0	5.0	1-Apr-09	30-Apr-09
VA0081256	COLIFORM, FECAL				2		1-Apr-09	30-Apr-09
VA0081256	TP				1.2		1-Apr-09	30-Apr-09
VA0081256	ENTEROCOCCI				1		1-Apr-09	30-Apr-09
VA0081256	CL2, TOTAL CONTACT			0.95			1-Apr-09	30-Apr-09
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Apr-09	30-Apr-09
VA0081256	TP YTD				0.81		1-Apr-09	30-Apr-09
VA0081256	FLOW	13.15	18.41				1-May-09	31-May-09
VA0081256	PH			6.7		7.2	1-May-09	31-May-09
VA0081256	BOD5	224	246		4	5	1-May-09	31-May-09
VA0081256	TSS	226	274		4.4	4.7	1-May-09	31-May-09
VA0081256	COLIFORM, FECAL				50		1-May-09	31-May-09
VA0081256	TP				0.94		1-May-09	31-May-09
VA0081256	ENTEROCOCCI				1		1-May-09	31-May-09
VA0081256	CL2, TOTAL CONTACT			0.85			1-May-09	31-May-09
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-May-09	31-May-09
VA0081256	TP YTD				0.84		1-May-09	31-May-09
VA0081256	FLOW	13.82	22.42				1-Jun-09	30-Jun-09
VA0081256	PH			6.5		7.3	1-Jun-09	30-Jun-09
VA0081256	BOD5	227	259		5	5	1-Jun-09	30-Jun-09
VA0081256	TSS	287	352		5.7	7.0	1-Jun-09	30-Jun-09
VA0081256	COLIFORM, FECAL				40		1-Jun-09	30-Jun-09
VA0081256	TP				1.4		1-Jun-09	30-Jun-09
VA0081256	ENTEROCOCCI				2		1-Jun-09	30-Jun-09
VA0081256	CL2, TOTAL CONTACT			0.83			1-Jun-09	30-Jun-09
VA0081256	CL2, TOTAL FINAL				0.0067	0.014	1-Jun-09	30-Jun-09
VA0081256	TP YTD				0.93		1-Jun-09	30-Jun-09
VA0081256	FLOW	10.63	12.82				1-Jul-09	31-Jul-09
VA0081256	PH			6.8		7.4	1-Jul-09	31-Jul-09
VA0081256	BOD5	184	232		5	6	1-Jul-09	31-Jul-09
VA0081256	TSS	203	281		4.9	6.7	1-Jul-09	31-Jul-09
VA0081256	COLIFORM, FECAL				9		1-Jul-09	31-Jul-09
VA0081256	TP				1.2		1-Jul-09	31-Jul-09
VA0081256	ENTEROCOCCI				1		1-Jul-09	31-Jul-09
VA0081256	CL2, TOTAL CONTACT			0.82			1-Jul-09	31-Jul-09
VA0081256	CL2, TOTAL FINAL				0.0035	0.016	1-Jul-09	31-Jul-09
VA0081256	TP YTD				0.96		1-Jul-09	31-Jul-09
VA0081256	FLOW	13.05	18.24				1-Aug-09	31-Aug-09
VA0081256	PH			6.9		7.4	1-Aug-09	31-Aug-09
VA0081256	BOD5	320	587		6	11	1-Aug-09	31-Aug-09
VA0081256	TSS	218	295		4.3	5.3	1-Aug-09	31-Aug-09
VA0081256	COLIFORM, FECAL				5		1-Aug-09	31-Aug-09
VA0081256	TP				1.1		1-Aug-09	31-Aug-09
VA0081256	ENTEROCOCCI				1		1-Aug-09	31-Aug-09
VA0081256	CL2, TOTAL CONTACT			0.89			1-Aug-09	31-Aug-09
VA0081256	CL2, TOTAL FINAL				0.0032	0.014	1-Aug-09	31-Aug-09
VA0081256	TP YTD				0.98		1-Aug-09	31-Aug-09
VA0081256	FLOW	14.29	26.43				1-Sep-09	30-Sep-09
VA0081256	PH			6.9		7.4	1-Sep-09	30-Sep-09
VA0081256	BOD5	366	674		6	9	1-Sep-09	30-Sep-09
VA0081256	TSS	304	468		5.4	6.1	1-Sep-09	30-Sep-09
VA0081256	COLIFORM, FECAL				14		1-Sep-09	30-Sep-09
VA0081256	TP				0.93		1-Sep-09	30-Sep-09
VA0081256	ENTEROCOCCI				6		1-Sep-09	30-Sep-09
VA0081256	CL2, TOTAL CONTACT			0.84			1-Sep-09	30-Sep-09



VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Sep-09	30-Sep-09
VA0081256	TP YTD				0.97		1-Sep-09	30-Sep-09
VA0081256	FLOW	11.98	15.80				1-Oct-09	31-Oct-09
VA0081256	PH			7.0		7.4	1-Oct-09	31-Oct-09
VA0081256	BOD5	320	447		7	10	1-Oct-09	31-Oct-09
VA0081256	TSS	339	527		7.6	11	1-Oct-09	31-Oct-09
VA0081256	COLIFORM, FECAL				4		1-Oct-09	31-Oct-09
VA0081256	TP				1.4		1-Oct-09	31-Oct-09
VA0081256	ENTEROCOCCI				1		1-Oct-09	31-Oct-09
VA0081256	CL2, TOTAL CONTACT			0.040			1-Oct-09	31-Oct-09
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Oct-09	31-Oct-09
VA0081256	TP YTD				1.0		1-Oct-09	31-Oct-09
VA0081256	FLOW	21.40	44.44				1-Nov-09	30-Nov-09
VA0081256	PH			6.4		7.2	1-Nov-09	30-Nov-09
VA0081256	BOD5	419	829		5	8	1-Nov-09	30-Nov-09
VA0081256	TSS	774	1951		7.6	15	1-Nov-09	30-Nov-09
VA0081256	COLIFORM, FECAL				7		1-Nov-09	30-Nov-09
VA0081256	TP				0.62		1-Nov-09	30-Nov-09
VA0081256	ENTEROCOCCI				1		1-Nov-09	30-Nov-09
VA0081256	CL2, TOTAL CONTACT			0.26			1-Nov-09	30-Nov-09
VA0081256	CL2, TOTAL FINAL				0.023	0.078	1-Nov-09	30-Nov-09
VA0081256	TP YTD				0.98		1-Nov-09	30-Nov-09
VA0081256	FLOW	24.43	41.42				1-Dec-09	31-Dec-09
VA0081256	PH			6.1		7.2	1-Dec-09	31-Dec-09
VA0081256	BOD5	907	1250		9	12	1-Dec-09	31-Dec-09
VA0081256	TSS	1527	2936		14	21	1-Dec-09	31-Dec-09
VA0081256	COLIFORM, FECAL				4		1-Dec-09	31-Dec-09
VA0081256	TP				0.52		1-Dec-09	31-Dec-09
VA0081256	ENTEROCOCCI				1		1-Dec-09	31-Dec-09
VA0081256	CL2, TOTAL CONTACT			0.40			1-Dec-09	31-Dec-09
VA0081256	CL2, TOTAL FINAL				0.0035	0.016	1-Dec-09	31-Dec-09
VA0081256	TP YTD				0.94		1-Dec-09	31-Dec-09
VA0081256	TP Annual Avg				0.94		1-Jan-09	31-Dec-09
VA0081256	FLOW	19.14	25.73				1-Jan-10	31-Jan-10
VA0081256	PH			6.6		7.1	1-Jan-10	31-Jan-10
VA0081256	BOD5	857	1726		12	24	1-Jan-10	31-Jan-10
VA0081256	TSS	980	1197		14	17	1-Jan-10	31-Jan-10
VA0081256	COLIFORM, FECAL				10		1-Jan-10	31-Jan-10
VA0081256	TP				0.60		1-Jan-10	31-Jan-10
VA0081256	ENTEROCOCCI				4		1-Jan-10	31-Jan-10
VA0081256	CL2, TOTAL CONTACT			0.78			1-Jan-10	31-Jan-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jan-10	31-Jan-10
VA0081256	TP YTD				0.60		1-Jan-10	31-Jan-10
VA0081256	FLOW	23.71	43.89				1-Feb-10	28-Feb-10
VA0081256	PH			6.6		7.1	1-Feb-10	28-Feb-10
VA0081256	BOD5	534	649		6	7	1-Feb-10	28-Feb-10
VA0081256	TSS	715	1036		7.9	9.2	1-Feb-10	28-Feb-10
VA0081256	COLIFORM, FECAL				6		1-Feb-10	28-Feb-10
VA0081256	TP				0.38		1-Feb-10	28-Feb-10
VA0081256	ENTEROCOCCI				2		1-Feb-10	28-Feb-10
VA0081256	CL2, TOTAL CONTACT			0.81			1-Feb-10	28-Feb-10
VA0081256	CL2, TOTAL FINAL				0.20	<QL	1-Feb-10	28-Feb-10
VA0081256	TP YTD				0.49		1-Feb-10	28-Feb-10
VA0081256	FLOW	20.76	35.68				1-Mar-10	31-Mar-10
VA0081256	PH			6.6		7.1	1-Mar-10	31-Mar-10
VA0081256	BOD5	946	1880		12	27	1-Mar-10	31-Mar-10
VA0081256	TSS	1217	2194		14	31	1-Mar-10	31-Mar-10
VA0081256	COLIFORM, FECAL				5		1-Mar-10	31-Mar-10
VA0081256	TP				0.70		1-Mar-10	31-Mar-10
VA0081256	ENTEROCOCCI				3		1-Mar-10	31-Mar-10
VA0081256	CL2, TOTAL CONTACT			0.64			1-Mar-10	31-Mar-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Mar-10	31-Mar-10
VA0081256	TP YTD				0.57		1-Mar-10	31-Mar-10
VA0081256	FLOW	16.40	23.75				1-Apr-10	30-Apr-10
VA0081256	PH			6.8		7.2	1-Apr-10	30-Apr-10

VA0081256	BOD5	450	578		8	11	1-Apr-10	30-Apr-10
VA0081256	TSS	229	302		3.7	4.3	1-Apr-10	30-Apr-10
VA0081256	COLIFORM, FECAL				3		1-Apr-10	30-Apr-10
VA0081256	TP				0.93		1-Apr-10	30-Apr-10
VA0081256	ENTEROCOCCI				2		1-Apr-10	30-Apr-10
VA0081256	CL2, TOTAL CONTACT			0.83			1-Apr-10	30-Apr-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Apr-10	30-Apr-10
VA0081256	TP YTD				0.66		1-Apr-10	30-Apr-10
VA0081256	FLOW	12.97	22.19				1-May-10	31-May-10
VA0081256	PH			6.9		7.4	1-May-10	31-May-10
VA0081256	BOD5	254	346		5	7	1-May-10	31-May-10
VA0081256	TSS	303	461		6.1	9.6	1-May-10	31-May-10
VA0081256	COLIFORM, FECAL				14		1-May-10	31-May-10
VA0081256	TP				0.97		1-May-10	31-May-10
VA0081256	ENTEROCOCCI				2		1-May-10	31-May-10
VA0081256	CL2, TOTAL CONTACT			0.82			1-May-10	31-May-10
VA0081256	CL2, TOTAL FINAL				0.0032	0.014	1-May-10	31-May-10
VA0081256	TP YTD				0.72		1-May-10	31-May-10
VA0081256	FLOW	12.00	13.62				1-Jun-10	30-Jun-10
VA0081256	PH			7.0		7.5	1-Jun-10	30-Jun-10
VA0081256	BOD5	192	223		4	5	1-Jun-10	30-Jun-10
VA0081256	TSS	269	337		5.8	6.9	1-Jun-10	30-Jun-10
VA0081256	COLIFORM, FECAL				7		1-Jun-10	30-Jun-10
VA0081256	TP				0.96		1-Jun-10	30-Jun-10
VA0081256	ENTEROCOCCI				1		1-Jun-10	30-Jun-10
VA0081256	CL2, TOTAL CONTACT			0.70			1-Jun-10	30-Jun-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jun-10	30-Jun-10
VA0081256	TP YTD				0.76		1-Jun-10	30-Jun-10
VA0081256	FLOW	10.99	18.87				1-Jul-10	31-Jul-10
VA0081256	PH			6.8		7.5	1-Jul-10	31-Jul-10
VA0081256	BOD5	271	455		7	12	1-Jul-10	31-Jul-10
VA0081256	TSS	233	339		5.6	7.5	1-Jul-10	31-Jul-10
VA0081256	COLIFORM, FECAL				26		1-Jul-10	31-Jul-10
VA0081256	TP				1.2		1-Jul-10	31-Jul-10
VA0081256	ENTEROCOCCI				2		1-Jul-10	31-Jul-10
VA0081256	CL2, TOTAL CONTACT			0.37			1-Jul-10	31-Jul-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jul-10	31-Jul-10
VA0081256	TP YTD				0.83		1-Jul-10	31-Jul-10
VA0081256	FLOW	11.09	12.64				1-Aug-10	31-Aug-10
VA0081256	PH			7.0		7.5	1-Aug-10	31-Aug-10
VA0081256	BOD5	196	323		5	8	1-Aug-10	31-Aug-10
VA0081256	TSS	247	311		5.9	7.2	1-Aug-10	31-Aug-10
VA0081256	COLIFORM, FECAL				9		1-Aug-10	31-Aug-10
VA0081256	TP				0.95		1-Aug-10	31-Aug-10
VA0081256	ENTEROCOCCI				1		1-Aug-10	31-Aug-10
VA0081256	CL2, TOTAL CONTACT			0.75			1-Aug-10	31-Aug-10
VA0081256	CL2, TOTAL FINAL				0.0032	0.014	1-Aug-10	31-Aug-10
VA0081256	TP YTD				0.84		1-Aug-10	31-Aug-10
VA0081256	FLOW	12.24	44.88				1-Sep-10	30-Sep-10
VA0081256	PH			6.7		7.4	1-Sep-10	30-Sep-10
VA0081256	BOD5	285	270		5	7	1-Sep-10	30-Sep-10
VA0081256	TSS	377	258		6.5	6.9	1-Sep-10	30-Sep-10
VA0081256	COLIFORM, FECAL				9		1-Sep-10	30-Sep-10
VA0081256	TP				0.92		1-Sep-10	30-Sep-10
VA0081256	ENTEROCOCCI				2		1-Sep-10	30-Sep-10
VA0081256	CL2, TOTAL CONTACT			0.86			1-Sep-10	30-Sep-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Sep-10	30-Sep-10
VA0081256	TP YTD				0.85		1-Sep-10	30-Sep-10
VA0081256	FLOW	16.96	44.83				1-Oct-10	31-Oct-10
VA0081256	PH			6.2		7.2	1-Oct-10	31-Oct-10
VA0081256	BOD5	627	1236		10	14	1-Oct-10	31-Oct-10
VA0081256	TSS	357	555		5.8	7.1	1-Oct-10	31-Oct-10
VA0081256	COLIFORM, FECAL				4		1-Oct-10	31-Oct-10
VA0081256	TP				0.93		1-Oct-10	31-Oct-10
VA0081256	ENTEROCOCCI				1		1-Oct-10	31-Oct-10



VA0081256	CL2, TOTAL CONTACT			0.38			1-Oct-10	31-Oct-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Oct-10	31-Oct-10
VA0081256	TP YTD				0.86		1-Oct-10	31-Oct-10
VA0081256	FLOW	12.23	13.49				1-Nov-10	30-Nov-10
VA0081256	PH			7.0		7.3	1-Nov-10	30-Nov-10
VA0081256	BOD5	191	229		4	5	1-Nov-10	30-Nov-10
VA0081256	TSS	221	246		4.8	5.2	1-Nov-10	30-Nov-10
VA0081256	COLIFORM, FECAL				4		1-Nov-10	30-Nov-10
VA0081256	TP				0.79		1-Nov-10	30-Nov-10
VA0081256	ENTEROCOCCI				1		1-Nov-10	30-Nov-10
VA0081256	CL2, TOTAL CONTACT			0.81			1-Nov-10	30-Nov-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Nov-10	30-Nov-10
VA0081256	TP YTD				0.85		1-Nov-10	30-Nov-10
VA0081256	FLOW	11.52	12.80				1-Dec-10	31-Dec-10
VA0081256	PH			6.8		7.3	1-Dec-10	31-Dec-10
VA0081256	BOD5	353	797		8	18	1-Dec-10	31-Dec-10
VA0081256	TSS	455	945		10	21	1-Dec-10	31-Dec-10
VA0081256	COLIFORM, FECAL				5		1-Dec-10	31-Dec-10
VA0081256	TP				0.68		1-Dec-10	31-Dec-10
VA0081256	ENTEROCOCCI				1		1-Dec-10	31-Dec-10
VA0081256	CL2, TOTAL CONTACT			0.81			1-Dec-10	31-Dec-10
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Dec-10	31-Dec-10
VA0081256	TP YTD				0.84		1-Dec-10	31-Dec-10
VA0081256	TP Annual Avg				0.84		1-Jan-10	31-Dec-10
VA0081256	FLOW	13.76	19.54				1-Jan-11	31-Jan-11
VA0081256	PH			6.6		7.2	1-Jan-11	31-Jan-11
VA0081256	BOD5	312	367		6	7	1-Jan-11	31-Jan-11
VA0081256	TSS	478	575		9.2	11	1-Jan-11	31-Jan-11
VA0081256	COLIFORM, FECAL				4		1-Jan-11	31-Jan-11
VA0081256	TP				0.46		1-Jan-11	31-Jan-11
VA0081256	ENTEROCOCCI				1		1-Jan-11	31-Jan-11
VA0081256	CL2, TOTAL CONTACT			0.93			1-Jan-11	31-Jan-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jan-11	31-Jan-11
VA0081256	TP YTD				0.46		1-Jan-11	31-Jan-11
VA0081256	FLOW	13.80	15.01				1-Feb-11	28-Feb-11
VA0081256	PH			6.6		7.3	1-Feb-11	28-Feb-11
VA0081256	BOD5	307	464		6	9	1-Feb-11	28-Feb-11
VA0081256	TSS	441	719		8.4	14	1-Feb-11	28-Feb-11
VA0081256	COLIFORM, FECAL				3		1-Feb-11	28-Feb-11
VA0081256	TP				0.87		1-Feb-11	28-Feb-11
VA0081256	ENTEROCOCCI				1		1-Feb-11	28-Feb-11
VA0081256	CL2, TOTAL CONTACT			0.52			1-Feb-11	28-Feb-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Feb-11	28-Feb-11
VA0081256	TP YTD				0.66		1-Feb-11	28-Feb-11
VA0081256	FLOW	14.21	17.73				1-Mar-11	31-Mar-11
VA0081256	PH			6.8		7.2	1-Mar-11	31-Mar-11
VA0081256	BOD5	238	262		4	5	1-Mar-11	31-Mar-11
VA0081256	TSS	342	375		6.4	6.9	1-Mar-11	31-Mar-11
VA0081256	COLIFORM, FECAL				2		1-Mar-11	31-Mar-11
VA0081256	TP				0.88		1-Mar-11	31-Mar-11
VA0081256	ENTEROCOCCI				1		1-Mar-11	31-Mar-11
VA0081256	CL2, TOTAL CONTACT			0.85			1-Mar-11	31-Mar-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Mar-11	31-Mar-11
VA0081256	TP YTD				0.74		1-Mar-11	31-Mar-11
VA0081256	FLOW	12.21	16.04				1-Apr-11	30-Apr-11
VA0081256	PH			6.2		7.3	1-Apr-11	30-Apr-11
VA0081256	BOD5	181	221		4	5	1-Apr-11	30-Apr-11
VA0081256	TSS	293	384		6.3	7.3	1-Apr-11	30-Apr-11
VA0081256	COLIFORM, FECAL				8		1-Apr-11	30-Apr-11
VA0081256	TP				0.74		1-Apr-11	30-Apr-11
VA0081256	ENTEROCOCCI				1		1-Apr-11	30-Apr-11
VA0081256	CL2, TOTAL CONTACT			0.83			1-Apr-11	30-Apr-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Apr-11	30-Apr-11
VA0081256	TP YTD				0.74		1-Apr-11	30-Apr-11
VA0081256	FLOW	10.59	11.99				1-May-11	31-May-11

VA0081256	PH			7.0		7.3	1-May-11	31-May-11
VA0081256	BOD5	229	455		6	11	1-May-11	31-May-11
VA0081256	TSS	173	196		4.3	5.0	1-May-11	31-May-11
VA0081256	COLIFORM, FECAL				11		1-May-11	31-May-11
VA0081256	TP				0.84		1-May-11	31-May-11
VA0081256	ENTEROCOCCI				1		1-May-11	31-May-11
VA0081256	CL2, TOTAL CONTACT			0.90			1-May-11	31-May-11
VA0081256	CL2, TOTAL FINAL				0.0035	0.016	1-May-11	31-May-11
VA0081256	TP YTD				0.76		1-May-11	31-May-11
VA0081256	FLOW	11.47	13.95				1-Jun-11	30-Jun-11
VA0081256	PH			7.0		7.4	1-Jun-11	30-Jun-11
VA0081256	BOD5	254	436		6	10	1-Jun-11	30-Jun-11
VA0081256	TSS	190	285		4.4	6.6	1-Jun-11	30-Jun-11
VA0081256	COLIFORM, FECAL				2		1-Jun-11	30-Jun-11
VA0081256	TP				0.55		1-Jun-11	30-Jun-11
VA0081256	ENTEROCOCCI				1		1-Jun-11	30-Jun-11
VA0081256	CL2, TOTAL CONTACT			0.89			1-Jun-11	30-Jun-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jun-11	30-Jun-11
VA0081256	TP YTD				0.73		1-Jun-11	30-Jun-11
VA0081256	FLOW	12.70	21.03				1-Jul-11	31-Jul-11
VA0081256	PH			6.9		7.5	1-Jul-11	31-Jul-11
VA0081256	BOD5	218	291		4	6	1-Jul-11	31-Jul-11
VA0081256	TSS	420	1110		8.4	22	1-Jul-11	31-Jul-11
VA0081256	COLIFORM, FECAL				6		1-Jul-11	31-Jul-11
VA0081256	TP				0.99		1-Jul-11	31-Jul-11
VA0081256	ENTEROCOCCI				1		1-Jul-11	31-Jul-11
VA0081256	CL2, TOTAL CONTACT			0.0			1-Jul-11	31-Jul-11
VA0081256	CL2, TOTAL FINAL				0.0039	0.017	1-Jul-11	31-Jul-11
VA0081256	TP YTD				0.76		1-Jul-11	31-Jul-11
VA0081256	FLOW	13.85	36.69				1-Aug-11	31-Aug-11
VA0081256	PH			6.5		7.4	1-Aug-11	31-Aug-11
VA0081256	BOD5	307	383		6	9	1-Aug-11	31-Aug-11
VA0081256	TSS	502	382		7.7	9.1	1-Aug-11	31-Aug-11
VA0081256	COLIFORM, FECAL				6		1-Aug-11	31-Aug-11
VA0081256	TP				1.3		1-Aug-11	31-Aug-11
VA0081256	ENTEROCOCCI				1		1-Aug-11	31-Aug-11
VA0081256	CL2, TOTAL CONTACT			0.26			1-Aug-11	31-Aug-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Aug-11	31-Aug-11
VA0081256	TP YTD				0.84		1-Aug-11	31-Aug-11
VA0081256	FLOW	16.05	22.59				1-Sep-11	30-Sep-11
VA0081256	PH			7.0		7.3	1-Sep-11	30-Sep-11
VA0081256	BOD5	2839	254		4	5	1-Sep-11	30-Sep-11
VA0081256	TSS	402	517		6.7	8.1	1-Sep-11	30-Sep-11
VA0081256	COLIFORM, FECAL				4		1-Sep-11	30-Sep-11
VA0081256	TP				0.79		1-Sep-11	30-Sep-11
VA0081256	ENTEROCOCCI				1		1-Sep-11	30-Sep-11
VA0081256	CL2, TOTAL CONTACT			0.73			1-Sep-11	30-Sep-11
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Sep-11	30-Sep-11
VA0081256	TP YTD				0.83		1-Sep-11	30-Sep-11
VA0081256	FLOW	13.66	18.40				1-Oct-11	31-Oct-11
VA0081256	PH			7.1		7.8	1-Oct-11	31-Oct-11
VA0081256	BOD5	272	305		5	6	1-Oct-11	31-Oct-11
VA0081256	TSS	389	486		7.6	8.3	1-Oct-11	31-Oct-11
VA0081256	COLIFORM, FECAL				2		1-Oct-11	31-Oct-11
VA0081256	TP				1.5		1-Oct-11	31-Oct-11
VA0081256	ENTEROCOCCI				1		1-Oct-11	31-Oct-11
VA0081256	CL2, TOTAL CONTACT			0.64			1-Oct-11	31-Oct-11
VA0081256	CL2, TOTAL FINAL				0.0039	0.017	1-Oct-11	31-Oct-11
VA0081256	TP YTD				0.89		1-Oct-11	31-Oct-11
VA0081256	FLOW	11.99	14.50				1-Nov-11	30-Nov-11
VA0081256	PH			7.1		7.3	1-Nov-11	30-Nov-11
VA0081256	BOD5	243	258		5	5	1-Nov-11	30-Nov-11
VA0081256	TSS	391	473		8.5	11	1-Nov-11	30-Nov-11
VA0081256	COLIFORM, FECAL				5		1-Nov-11	30-Nov-11
VA0081256	TP				0.89		1-Nov-11	30-Nov-11

VA0081256	ENTEROCOCCI				3		1-Nov-11	30-Nov-11
VA0081256	CL2, TOTAL CONTACT			0.60			1-Nov-11	30-Nov-11
VA0081256	CL2, TOTAL FINAL				0.010	0.029	1-Nov-11	30-Nov-11
VA0081256	TP YTD				0.89		1-Nov-11	30-Nov-11
VA0081256	FLOW	12.28	12.85				1-Dec-11	31-Dec-11
VA0081256	PH			7.0		7.3	1-Dec-11	31-Dec-11
VA0081256	BOD5	271	305		6	7	1-Dec-11	31-Dec-11
VA0081256	TSS	353	381		7.6	8.2	1-Dec-11	31-Dec-11
VA0081256	COLIFORM, FECAL				1		1-Dec-11	31-Dec-11
VA0081256	TP				1.5		1-Dec-11	31-Dec-11
VA0081256	ENTEROCOCCI				1		1-Dec-11	31-Dec-11
VA0081256	CL2, TOTAL CONTACT			0.83			1-Dec-11	31-Dec-11
VA0081256	CL2, TOTAL FINAL				0.0048	0.021	1-Dec-11	31-Dec-11
VA0081256	TP YTD				0.94		1-Dec-11	31-Dec-11
VA0081256	TP Annual Avg				0.94		1-Jan-11	31-Dec-11
VA0081256	FLOW	12.21	14.18				1-Jan-12	31-Jan-12
VA0081256	PH			6.9		7.3	1-Jan-12	31-Jan-12
VA0081256	BOD5	307	403		7	8	1-Jan-12	31-Jan-12
VA0081256	TSS	602	966		13	20	1-Jan-12	31-Jan-12
VA0081256	COLIFORM, FECAL				3		1-Jan-12	31-Jan-12
VA0081256	TP				0.89		1-Jan-12	31-Jan-12
VA0081256	ENTEROCOCCI				1		1-Jan-12	31-Jan-12
VA0081256	CL2, TOTAL CONTACT			0.80			1-Jan-12	31-Jan-12
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Jan-12	31-Jan-12
VA0081256	TP YTD				0.89		1-Jan-12	31-Jan-12
VA0081256	FLOW	14.58	19.14				1-Feb-12	29-Feb-12
VA0081256	PH			7.0		7.3	1-Feb-12	29-Feb-12
VA0081256	BOD5	313	468		6	9	1-Feb-12	29-Feb-12
VA0081256	TSS	508	729		9	14	1-Feb-12	29-Feb-12
VA0081256	COLIFORM, FECAL				3		1-Feb-12	29-Feb-12
VA0081256	TP				0.86		1-Feb-12	29-Feb-12
VA0081256	ENTEROCOCCI				2		1-Feb-12	29-Feb-12
VA0081256	CL2, TOTAL CONTACT			0.44			1-Feb-12	29-Feb-12
VA0081256	CL2, TOTAL FINAL				0.0034	0.014	1-Feb-12	29-Feb-12
VA0081256	TP YTD				0.88		1-Feb-12	29-Feb-12
VA0081256	FLOW	15.18	20.66				1-Mar-12	31-Mar-12
VA0081256	PH			6.9		7.4	1-Mar-12	31-Mar-12
VA0081256	BOD5	275	303		5	5	1-Mar-12	31-Mar-12
VA0081256	TSS	317	457		5	7	1-Mar-12	31-Mar-12
VA0081256	COLIFORM, FECAL				3		1-Mar-12	31-Mar-12
VA0081256	TP				0.56		1-Mar-12	31-Mar-12
VA0081256	ENTEROCOCCI				1		1-Mar-12	31-Mar-12
VA0081256	CL2, TOTAL CONTACT			0.52			1-Mar-12	31-Mar-12
VA0081256	CL2, TOTAL FINAL				<QL	<QL	1-Mar-12	31-Mar-12
VA0081256	TP YTD				0.77		1-Mar-12	31-Mar-12

*Pulled from disclaimer  
5/25/12. DDA*

# SALTWATER AND TRANSITION ZONES

## WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: HRSD Boat Harbor STP  
Receiving Stream: James River

Permit No.: VA0081256

Version: OWP Guidance Memo 00-2011 (8/24/00)

### Stream Information

Mean Hardness (as CaCO<sub>3</sub>) = mg/l  
90th % Temperature (Annual) = 26.7 (° C)  
90th % Temperature (Winter) = (° C)  
90th % Maximum pH = 8.3  
10th % Maximum pH = 7.7  
Tier Designation (1 or 2) = 1  
Early Life Stages Present Y/N = Y  
Tidal Zone = 1 (1 = saltwater, 2 = transition zone)  
Mean Salinity = 14.15 (g/kg)

### Mixing Information

Design Flow (MGD) 25  
Acute WLA multiplier 61  
Chronic WLA multiplier 267  
Human health WLA multiplier 267

### Effluent Information

Mean Hardness (as CaCO<sub>3</sub>) = 163 mg/L  
90 % Temperature (Annual) = (° C)  
90 % Temperature (Winter) = 18 (° C)  
90 % Maximum pH = 7.52 SU  
10 % Maximum pH = 7.2 SU  
Discharge Flow = 20 MGD

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH
Acenaphthene	0	--	--	9.9E+02	--	--	2.6E+05	--	--	--	--	--	--	--	--	2.6E+05
Acrolein		--	--	9.3E+00	--	--	2.5E+03	--	--	--	--	--	--	--	--	2.5E+03
Acrylonitrile <sup>C</sup>		--	--	2.5E+00	--	--	6.7E+02	--	--	--	--	--	--	--	--	6.7E+02
Aldrin <sup>C</sup>	0	1.3E+00	--	5.0E-04	7.9E+01	--	1.3E-01	--	--	--	--	--	--	7.9E+01	--	1.3E-01
Ammonia-N (mg/l) - Annual	0	2.01E+00	2.80E-01	--	1.23E+02	7.47E+01	--	--	--	--	--	--	--	1.23E+02	7.47E+01	--
Ammonia-N (mg/l) - Winter	0	1.28E+01	1.85E+00	--	7.81E+02	4.93E+02	--	--	--	--	--	--	--	7.81E+02	4.93E+02	--
Anthracene	0	--	--	4.0E+04	--	--	1.1E+07	--	--	--	--	--	--	--	--	1.1E+07
Antimony	0	--	--	6.4E+02	--	--	1.7E+05	--	--	--	--	--	--	--	--	1.7E+05
Arsenic	0	6.9E+01	3.6E+01	--	4.2E+03	9.6E+03	--	--	--	--	--	--	--	4.2E+03	9.6E+03	--
Benzene <sup>C</sup>	0	--	--	5.1E+02	--	--	1.4E+05	--	--	--	--	--	--	--	--	1.4E+05
Benzidine <sup>C</sup>		--	--	2.0E-03	--	--	5.3E-01	--	--	--	--	--	--	--	--	5.3E-01
Benzo (a) anthracene <sup>C</sup>	0	--	--	1.8E-01	--	--	4.8E+01	--	--	--	--	--	--	--	--	4.8E+01
Benzo (b) fluoranthene <sup>C</sup>	0	--	--	1.8E-01	--	--	4.8E+01	--	--	--	--	--	--	--	--	4.8E+01
Benzo (k) fluoranthene <sup>C</sup>	0	--	--	1.8E-01	--	--	4.8E+01	--	--	--	--	--	--	--	--	4.8E+01
Benzo (a) pyrene <sup>C</sup>	0	--	--	1.8E-01	--	--	4.8E+01	--	--	--	--	--	--	--	--	4.8E+01
Bis(2-Chloroethyl) Ether <sup>C</sup>	0	--	--	5.3E+00	--	--	1.4E+03	--	--	--	--	--	--	--	--	1.4E+03
Bis(2-Chloroisopropyl) Ether	0	--	--	6.5E+04	--	--	1.7E+07	--	--	--	--	--	--	--	--	1.7E+07
Bis(2-Ethylhexyl) Phthalate <sup>C</sup>	0	--	--	2.2E+01	--	--	5.9E+03	--	--	--	--	--	--	--	--	5.9E+03
Bromoform <sup>C</sup>	0	--	--	1.4E+03	--	--	3.7E+05	--	--	--	--	--	--	--	--	3.7E+05
Butylbenzylphthalate	0	--	--	1.9E+03	--	--	5.1E+05	--	--	--	--	--	--	--	--	5.1E+05
Cadmium	0	4.0E+01	8.8E+00	--	2.4E+03	2.3E+03	--	--	--	--	--	--	--	2.4E+03	2.3E+03	--
Carbon Tetrachloride <sup>C</sup>	0	--	--	1.6E+01	--	--	4.3E+03	--	--	--	--	--	--	--	--	4.3E+03
Chlordane <sup>C</sup>	0	9.0E-02	4.0E-03	8.1E-03	5.5E+00	1.1E+00	2.2E+00	--	--	--	--	--	--	5.5E+00	1.1E+00	2.2E+00

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH
TRC	0			--			--	--	--	--	--	--	--	--	--	--
Chlorine Prod. Oxidant	0	1.3E+01	7.5E+00	--	7.9E+02	2.0E+03	--	--	--	--	--	--	--	7.9E+02	2.0E+03	--
Chlorobenzene		--	--	1.6E+03	--	--	4.3E+05	--	--	--	--	--	--	--	--	4.3E+05
Chlorodibromomethane <sup>C</sup>	0	--	--	1.3E+02	--	--	3.5E+04	--	--	--	--	--	--	--	--	3.5E+04
Chloroform	0	--	--	1.1E+04	--	--	2.9E+06	--	--	--	--	--	--	--	--	2.9E+06
2-Chloronaphthalene	0	--	--	1.6E+03	--	--	4.3E+05	--	--	--	--	--	--	--	--	4.3E+05
2-Chlorophenol	0	--	--	1.5E+02	--	--	4.0E+04	--	--	--	--	--	--	--	--	4.0E+04
Chlorpyrifos	0	1.1E-02	5.6E-03	--	6.7E-01	1.5E+00	--	--	--	--	--	--	--	6.7E-01	1.5E+00	--
Chromium III	0			--			--	--	--	--	--	--	--	--	--	--
Chromium VI	0	1.1E+03	5.0E+01	--	6.7E+04	1.3E+04	--	--	--	--	--	--	--	6.7E+04	1.3E+04	--
Chrysene <sup>C</sup>	0	--	--	1.8E-02	--	--	4.8E+00	--	--	--	--	--	--	--	--	4.8E+00
Copper	0	9.3E+00	6.0E+00	--	5.7E+02	1.6E+03	--	--	--	--	--	--	--	5.7E+02	1.6E+03	--
Cyanide, Free	0	1.0E+00	1.0E+00	1.6E+04	6.1E+01	2.7E+02	4.3E+06	--	--	--	--	--	--	6.1E+01	2.7E+02	4.3E+06
DDD <sup>C</sup>	0	--	--	3.1E-03	--	--	8.3E-01	--	--	--	--	--	--	--	--	8.3E-01
DDE <sup>C</sup>	0	--	--	2.2E-03	--	--	5.9E-01	--	--	--	--	--	--	--	--	5.9E-01
DDT <sup>C</sup>	0	1.3E-01	1.0E-03	2.2E-03	7.9E+00	2.7E-01	5.9E-01	--	--	--	--	--	--	7.9E+00	2.7E-01	5.9E-01
Demeton	0	--	1.0E-01	--	--	2.7E+01	--	--	--	--	--	--	--	--	2.7E+01	--
Diazinon	0	8.2E-01	8.2E-01	--	5.0E+01	2.2E+02	--	--	--	--	--	--	--	5.0E+01	2.2E+02	--
Dibenz(a,h)anthracene <sup>C</sup>	0	--	--	1.8E-01	--	--	4.8E+01	--	--	--	--	--	--	--	--	4.8E+01
1,2-Dichlorobenzene	0	--	--	1.3E+03	--	--	3.5E+05	--	--	--	--	--	--	--	--	3.5E+05
1,3-Dichlorobenzene	0	--	--	9.6E+02	--	--	2.6E+05	--	--	--	--	--	--	--	--	2.6E+05
1,4-Dichlorobenzene	0	--	--	1.9E+02	--	--	5.1E+04	--	--	--	--	--	--	--	--	5.1E+04
3,3-Dichlorobenzidine <sup>C</sup>	0	--	--	2.8E-01	--	--	7.5E+01	--	--	--	--	--	--	--	--	7.5E+01
Dichlorobromomethane <sup>C</sup>	0	--	--	1.7E+02	--	--	4.5E+04	--	--	--	--	--	--	--	--	4.5E+04
1,2-Dichloroethane <sup>C</sup>	0	--	--	3.7E+02	--	--	9.9E+04	--	--	--	--	--	--	--	--	9.9E+04
1,1-Dichloroethylene	0	--	--	7.1E+03	--	--	1.9E+06	--	--	--	--	--	--	--	--	1.9E+06
1,2-trans-dichloroethylene	0	--	--	1.0E+04	--	--	2.7E+06	--	--	--	--	--	--	--	--	2.7E+06
2,4-Dichlorophenol	0	--	--	2.9E+02	--	--	7.7E+04	--	--	--	--	--	--	--	--	7.7E+04
1,2-Dichloropropane <sup>C</sup>	0	--	--	1.5E+02	--	--	4.0E+04	--	--	--	--	--	--	--	--	4.0E+04
1,3-Dichloropropene <sup>C</sup>	0	--	--	2.1E+02	--	--	5.6E+04	--	--	--	--	--	--	--	--	5.6E+04
Dieldrin <sup>C</sup>	0	7.1E-01	1.9E-03	5.4E-04	4.3E+01	5.1E-01	1.4E-01	--	--	--	--	--	--	4.3E+01	5.1E-01	1.4E-01
Diethyl Phthalate	0	--	--	4.4E+04	--	--	1.2E+07	--	--	--	--	--	--	--	--	1.2E+07
2,4-Dimethylphenol	0	--	--	8.5E+02	--	--	2.3E+05	--	--	--	--	--	--	--	--	2.3E+05
Dimethyl Phthalate	0	--	--	1.1E+06	--	--	2.9E+08	--	--	--	--	--	--	--	--	2.9E+08
Di-n-Butyl Phthalate	0	--	--	4.6E+03	--	--	1.2E+06	--	--	--	--	--	--	--	--	1.2E+06
2,4 Dinitrophenol	0	--	--	5.3E+03	--	--	1.4E+06	--	--	--	--	--	--	--	--	1.4E+06
2-Methyl-4,6-Dinitrophenol	0	--	--	2.8E+02	--	--	7.5E+04	--	--	--	--	--	--	--	--	7.5E+04
2,4-Dinitrotoluene <sup>C</sup>	0	--	--	3.4E+01	--	--	9.1E+03	--	--	--	--	--	--	--	--	9.1E+03
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	5.1E-08	--	--	1.4E-05	--	--	--	--	--	--	--	--	1.4E-05
1,2-Diphenylhydrazine <sup>C</sup>	0	--	--	2.0E+00	--	--	5.3E+02	--	--	--	--	--	--	--	--	5.3E+02
Alpha-Endosulfan	0	3.4E-02	8.7E-03	8.9E+01	2.1E+00	2.3E+00	2.4E+04	--	--	--	--	--	--	2.1E+00	2.3E+00	2.4E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH
Beta-Endosulfan	0	3.4E-02	8.7E-03	8.9E+01	2.1E+00	2.3E+00	2.4E+04	--	--	--	--	--	--	2.1E+00	2.3E+00	2.4E+04
Alpha + Beta Endosulfan	0	3.4E-02	8.7E-03	--	2.1E+00	2.3E+00	--	--	--	--	--	--	--	2.1E+00	2.3E+00	--
Endosulfan Sulfate	0	--	--	8.9E+01	--	--	2.4E+04	--	--	--	--	--	--	--	--	2.4E+04
Endrin	0	3.7E-02	2.3E-03	6.0E-02	2.3E+00	6.1E-01	1.6E+01	--	--	--	--	--	--	2.3E+00	6.1E-01	1.6E+01
Endrin Aldehyde	0	--	--	3.0E-01	--	--	8.0E+01	--	--	--	--	--	--	--	--	8.0E+01
Ethylbenzene	0	--	--	2.1E+03	--	--	5.6E+05	--	--	--	--	--	--	--	--	5.6E+05
Fluoranthene	0	--	--	1.4E+02	--	--	3.7E+04	--	--	--	--	--	--	--	--	3.7E+04
Fluorene	0	--	--	5.3E+03	--	--	1.4E+06	--	--	--	--	--	--	--	--	1.4E+06
Guthion	0	--	1.0E-02	--	--	2.7E+00	--	--	--	--	--	--	--	--	2.7E+00	--
Heptachlor <sup>C</sup>	0	5.3E-02	3.6E-03	7.9E-04	3.2E+00	9.6E-01	2.1E-01	--	--	--	--	--	--	3.2E+00	9.6E-01	2.1E-01
Heptachlor Epoxide <sup>C</sup>	0	5.3E-02	3.6E-03	3.9E-04	3.2E+00	9.6E-01	1.0E-01	--	--	--	--	--	--	3.2E+00	9.6E-01	1.0E-01
Hexachlorobenzene <sup>C</sup>	0	--	--	2.9E-03	--	--	7.7E-01	--	--	--	--	--	--	--	--	7.7E-01
Hexachlorobutadiene <sup>C</sup>	0	--	--	1.8E+02	--	--	4.8E+04	--	--	--	--	--	--	--	--	4.8E+04
Hexachlorocyclohexane Alpha-BHC <sup>C</sup>	0	--	--	4.9E-02	--	--	1.3E+01	--	--	--	--	--	--	--	--	1.3E+01
Hexachlorocyclohexane Beta-BHC <sup>C</sup>	0	--	--	1.7E-01	--	--	4.5E+01	--	--	--	--	--	--	--	--	4.5E+01
Hexachlorocyclohexane Gamma-BHC <sup>C</sup> (Lindane)	0	1.6E-01	--	1.8E+00	9.8E+00	--	4.8E+02	--	--	--	--	--	--	9.8E+00	--	4.8E+02
Hexachlorocyclopentadiene	0	--	--	1.1E+03	--	--	2.9E+05	--	--	--	--	--	--	--	--	2.9E+05
Hexachloroethane <sup>C</sup>	0	--	--	3.3E+01	--	--	8.8E+03	--	--	--	--	--	--	--	--	8.8E+03
Hydrogen Sulfide	0	--	2.0E+00	--	--	5.3E+02	--	--	--	--	--	--	--	--	5.3E+02	--
Indeno (1,2,3-cd) pyrene C	0	--	--	1.8E-01	--	--	4.8E+01	--	--	--	--	--	--	--	--	4.8E+01
Isophorone <sup>C</sup>	0	--	--	9.6E+03	--	--	2.6E+06	--	--	--	--	--	--	--	--	2.6E+06
Kepone	0	--	0.0E+00	--	--	0.0E+00	--	--	--	--	--	--	--	--	0.0E+00	--
Lead	0	2.4E+02	9.3E+00	--	1.5E+04	2.5E+03	--	--	--	--	--	--	--	1.5E+04	2.5E+03	--
Malathion	0	--	1.0E-01	--	--	2.7E+01	--	--	--	--	--	--	--	--	2.7E+01	--
Mercury	0	1.8E+00	9.4E-01	--	1.1E+02	2.5E+02	--	--	--	--	--	--	--	1.1E+02	2.5E+02	--
Methyl Bromide	0	--	--	1.5E+03	--	--	4.0E+05	--	--	--	--	--	--	--	--	4.0E+05
Methylene Chloride <sup>C</sup>	0	--	--	5.9E+03	--	--	1.6E+06	--	--	--	--	--	--	--	--	1.6E+06
Methoxychlor	0	--	3.0E-02	--	--	8.0E+00	--	--	--	--	--	--	--	--	8.0E+00	--
Mirex	0	--	0.0E+00	--	--	0.0E+00	--	--	--	--	--	--	--	--	0.0E+00	--
Nickel	0	7.4E+01	8.2E+00	4.6E+03	4.5E+03	2.2E+03	1.2E+06	--	--	--	--	--	--	4.5E+03	2.2E+03	1.2E+06
Nitrobenzene	0	--	--	6.9E+02	--	--	1.8E+05	--	--	--	--	--	--	--	--	1.8E+05
N-Nitrosodimethylamine <sup>C</sup>	0	--	--	3.0E+01	--	--	8.0E+03	--	--	--	--	--	--	--	--	8.0E+03
N-Nitrosodiphenylamine <sup>C</sup>	0	--	--	6.0E+01	--	--	1.6E+04	--	--	--	--	--	--	--	--	1.6E+04
N-Nitrosodi-n-propylamine <sup>C</sup>	0	--	--	5.1E+00	--	--	1.4E+03	--	--	--	--	--	--	--	--	1.4E+03
Nonylphenol	0	7.0E+00	1.7E+00	--	4.3E+02	4.5E+02	--	--	--	--	--	--	--	4.3E+02	4.5E+02	--
Parathion	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB Total <sup>C</sup>	0	--	3.0E-02	6.4E-04	--	8.0E+00	1.7E-01	--	--	--	--	--	--	--	8.0E+00	1.7E-01
Pentachlorophenol <sup>C</sup>	0	1.3E+01	7.9E+00	3.0E+01	7.9E+02	2.1E+03	8.0E+03	--	--	--	--	--	--	7.9E+02	2.1E+03	8.0E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH	Acute	Chronic	HH
Phenol	0	--	--	8.6E+05	--	--	2.3E+08	--	--	--	--	--	--	--	--	2.3E+08
Phosphorus (Elemental)	0	--	1.0E-01	--	--	2.7E+01	--	--	--	--	--	--	--	--	2.7E+01	--
Pyrene	0	--	--	4.0E+03	--	--	1.1E+06	--	--	--	--	--	--	--	--	1.1E+06
Selenium	0	2.9E+02	7.1E+01	4.2E+03	1.8E+04	1.9E+04	1.1E+06	--	--	--	--	--	--	1.8E+04	1.9E+04	1.1E+06
Silver	0	1.9E+00	--	--	1.2E+02	--	--	--	--	--	--	--	--	1.2E+02	--	--
1,1,2,2-Tetrachloroethane <sup>C</sup>	0	--	--	4.0E+01	--	--	1.1E+04	--	--	--	--	--	--	--	--	1.1E+04
Tetrachloroethylene <sup>C</sup>	0	--	--	3.3E+01	--	--	8.8E+03	--	--	--	--	--	--	--	--	8.8E+03
Thallium	0	--	--	4.7E-01	--	--	1.3E+02	--	--	--	--	--	--	--	--	1.3E+02
Toluene	0	--	--	6.0E+03	--	--	1.6E+06	--	--	--	--	--	--	--	--	1.6E+06
Toxaphene <sup>C</sup>	0	2.1E-01	2.0E-04	2.8E-03	1.3E+01	5.3E-02	7.5E-01	--	--	--	--	--	--	1.3E+01	5.3E-02	7.5E-01
Tributyltin	0	4.2E-01	7.4E-03	--	2.6E+01	2.0E+00	--	--	--	--	--	--	--	2.6E+01	2.0E+00	--
1,2,4-Trichlorobenzene	0	--	--	7.0E+01	--	--	1.9E+04	--	--	--	--	--	--	--	--	1.9E+04
1,1,2-Trichloroethane <sup>C</sup>	0	--	--	1.6E+02	--	--	4.3E+04	--	--	--	--	--	--	--	--	4.3E+04
Trichloroethylene <sup>C</sup>	0	--	--	3.0E+02	--	--	8.0E+04	--	--	--	--	--	--	--	--	8.0E+04
2,4,6-Trichlorophenol <sup>C</sup>	0	--	--	2.4E+01	--	--	6.4E+03	--	--	--	--	--	--	--	--	6.4E+03
Vinyl Chloride <sup>C</sup>	0	--	--	2.4E+01	--	--	6.4E+03	--	--	--	--	--	--	--	--	6.4E+03
Zinc	0	9.0E+01	8.1E+01	2.6E+04	5.5E+03	2.2E+04	6.9E+06	--	--	--	--	--	--	5.5E+03	2.2E+04	6.9E+06

**Notes:**

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. For transition zone waters, spreadsheet prints the lesser of the freshwater and saltwater water quality criteria.
6. Regular WLA = (WQC x WLA multiplier) - (WLA multiplier - 1)(background conc.)
7. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic  
= (0.1(WQC - background conc.) + background conc.) for human health
8. Antideg. WLA = (Antideg. Baseline)(WLA multiplier) - (WLA multiplier - 1)(background conc.)

Site Specific	
<u>Metal</u>	<u>Target Value (SSTV)</u>
Antimony	1.7E+05
Arsenic III	1.7E+03
Cadmium	9.8E+02
Chromium III	#VALUE!
Chromium VI	8.0E+03
Copper	2.3E+02
Lead	1.5E+03
Mercury	4.4E+01
Nickel	1.3E+03
Selenium	7.1E+03
Silver	4.6E+01
Zinc	2.2E+03

Note: do not use QL's lower than the minimum QL's provided in agency guidance

ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE



VPDES PERMIT PROGRAM  
LIST OF SPECIAL CONDITIONS RATIONALE

Name of Condition:

B. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements

Rationale: Required by Water Quality Standards, 9VAC 25-260-170, Fecal coliform bacteria; other waters. Also, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment in order to comply with the permit. This ensures proper operation of chlorination equipment to maintain adequate disinfection.

C. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1.a. Sludge Reopener

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-220 C., and 40 CFR 122.44 (c)(4), which note that all permits for domestic sewage treatment plants (including sludge-only facilities) include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Clean Water Act.

1.b. Water Quality Standards Reopener

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

1.c. Nutrient Reopener

Rationale: 9 VAC 25-40-70 A authorizes DEQ to include technology-based annual concentration limits in the permits of facilities that have installed nutrient control equipment, whether by new construction, expansion or upgrade. 9 VAC 25-31-390 A authorizes DEQ to modify VPDES permits to promulgate amended water quality standards.

1.d. Nutrient Removal Facilities Reopener

Rationale: 9 VAC 25-40-70 A authorizes DEQ to include technology-based annual concentration limits in the permits of facilities that have installed nutrient control equipment, whether by new construction, expansion or upgrade.

1.e. Total Maximum Daily Load (TMDL) Reopener

Rationale: For specified waters, section 303(d) of the Clean Water Act requires the development of total maximum daily loads necessary to achieve the applicable water quality standards. The TMDL must take into account seasonal variations and a margin of safety. In addition, section 62.1-44.19:7 of the State Water Control Law requires the development and implementation of plans to address impaired waters, including TMDLs. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to incorporate the requirements of a TMDL once it is developed. In addition, the reopener recognizes that, in accordance to section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other wasteload allocation prepared under section 303 of the Act.

2. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

3. Reliability Class

Rationale: Required by Sewage Collection and Treatment Regulations, 12 VAC 5-581-20 and 120 for all municipal facilities.

4. CTC, CTO and O & M Manual Requirements

Rationale: Required by the State Water Control Law, Section 62.1-44.19; the Sewage Collection and Treatment Regulations (12 VAC 5-581 et seq); Section 401 of the Clean Water Act; 40 CFR 122.41(e); and the VPDES Permit Regulation (9 VAC-25-31-190E).

9 VAC 25-40-70 A authorizes DEQ to include technology-based annual concentration limits in the permits of facilities that have installed nutrient control equipment, whether by new construction, expansion or upgrade.

5. 95% Design Capacity Notification

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-200 B.2. for all POTW and PVOTW permits. Best professional judgment is used to apply this condition to other (private) municipal treatment facilities.

6. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4.

7. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters with quantification levels and other limited parameters to ensure consistent, accurate reporting on submitted reports.

8. Effluent Monitoring Frequencies

Rationale: The incentive for reduced monitoring is an effort to reduce the cost of environmental compliance and to provide incentives to facilities which demonstrate outstanding performance and consistent compliance with their permits. Facilities which cannot comply with specific effluent parameters or have other related violations will not be eligible for this benefit. This is in conformance with Guidance Memorandum No. 98-2005 - Reduced Monitoring and EPA's proposed "Interim Guidance For Performance-Based Reduction of NPDES Permit Monitoring Frequencies" (EPA 833-B-96-001) published in April 1996.

9. Indirect Dischargers

Rationale: Required by VPDES Permit Regulation, 9 VAC 25-31-200 B.1. for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.

10. Sludge Management Plan

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-420, and 40 CFR 503.1 specify the purpose and applicability for sludge management plans. The VPDES Permit Regulation, 9 VAC 25-31-100 J.4., also sets forth certain detailed information which must be included in a sludge management plan. The VPDES sewage sludge permit application form and its attachments constitute the sludge management plan and will be considered for approval with the VPDES permit. In addition, the Biosolids Use Regulation, 12 VAC 5-585-330 and 340, specifies the general purpose and control requirements for an O&M manual in order to facilitate proper O&M of the facilities to meet the requirements of the regulation.

11. Total Phosphorus reporting calculations

Rationale: §62.1-44.19:13 of the Code of Virginia defines how annual nutrient loads are to be calculated; this is carried forward in 9 VAC 25-820-70. As annual concentrations (as opposed to loads) are limited in the individual permit, this special condition is intended to reconcile the reporting calculations between the permit programs, as the permittee is collecting a single set of samples for the purpose of ascertaining compliance with two permits.

12. Suspension of concentration limits for E3/E4 facilities

Rationale: 9 VAC 25-40-70 B authorizes DEQ to approve an alternate compliance method to the technology-based effluent concentration limitations as required by subsection A of this section. Such alternate compliance method shall be incorporated into the permit of an Exemplary Environmental Enterprise (E3) facility or an Extraordinary Environmental Enterprise (E4) facility to allow the suspension of applicable technology-based effluent concentration limitations during the period the E3 or E4 facility has a fully implemented environmental management system that includes operation of installed nutrient removal technologies at the treatment efficiency levels for which they were designed.

D. PRETREATMENT

Rationale: The permit regulation, 9 VAC 25-31-10 et seq., Part VII, establishes the legal requirements for State, local government and industry to implement National Pretreatment Standards. The Pretreatment Standards are implemented to prevent POTW plant pass through, interference, violation of water quality standards or contamination of sewage sludge. The regulation requires POTWs with a total design flow greater than 5 MGD with significant or categorical industrial input to establish a Pretreatment Program. The regulation also may apply to POTWs with design flows less than 5 MGD if circumstances warrant control of industrial discharges.

E. TOXICS MANAGEMENT PROGRAM (TMP)

Rationale: To determine the need for pollutant specific and/or whole effluent toxicity limits as may be required by the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d). See Attachment 9 of this fact sheet for additional justification.

ATTACHMENT 8

TOXICS MONITORING/TOXICS REDUCTION/  
WET LIMIT RATIONALE

# MEMORANDUM

## VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

### TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: Toxics Management Program (TMP) testing for HRSD-Boat Harbor Plant (VA0081256)

TO: File

FROM: Deanna Austin

DATE: 5/25/12

COPIES:

HRSD-Boat Harbor plant is a major municipal discharger (design flow 25 MGD) of treated domestic sewage. Discharge from outfall 001 to the James River near the confluence of the Chesapeake Bay will continue to be monitored for toxicity during this permit term.

There has been no change in the dilution from the previous permit; therefore the nearfield (acute) dilution factor (61) remains the same. The following calculation shows how the  $TU_a$  was derived.

Acute dilution =  $100/IWC_a$

$61 = 100/IWC_a$

$100/61 = 1.64\% IWC_a$

$LC_{50} = IWC/\text{Acute Water Quality Instream criterion}$

$LC_{50} = 1.64/0.3 = 5.47\%$  (round to 6% effluent)

$TU_a = 1/LC_{50} \times 100$

$1/6 \times 100 = 16.67$

$TU_a = 16.7$

The following table details the results of the TMP tests for the last permit term. Since all data met the  $LC_{50}$ , a WET limit is not needed at this time and annual TMP testing should continue.

OUTFALL	SPECIES	SAMPLEDT	LC50	SURVIVAL in 11.2% effluent	TU	TEST	LAB
001	A.b.	11/18/08	>11.2	100	<8.9	Acute	HRSD
001	C.v.	11/18/08	>11.2	100	<8.9	Acute	HRSD
001	A.b.	9/15/09	>11.2	100	<8.9	Acute	HRSD
001	C.v.	9/15/09	>11.2	100	<8.9	Acute	HRSD
001	C.v.	9/14/10	>11.2	100	<8.9	Acute	HRSD

001	A.b.	9/14/10	>11.2	100	<8.9	Acute	HRSD
001	C.v.	6/24/11	>11.2	100	<8.9	Acute	HRSD
001	A.b.	6/24/11	>11.2	95	<8.9	Acute	HRSD
001	A.b.	2/8/12	>11.2	100	<8.9	Acute	HRSD
001	C.v.	2/8/12	>11.2	100	<8.9	Acute	HRSD

C.v. - *Cyprinodon variegatus*

A.b.- *Americamysis bahia*

The following TMP language is recommended for the reissuance of the HRSD Boat Harbor permit (VA0081256).

D. TOXICS MANAGEMENT PROGRAM (TMP)

1. Biological Monitoring

- a. In accordance with the schedule in 2. below, the permittee shall conduct annual acute toxicity tests for the duration of the permit. The permittee shall collect 24-hour flow-proportioned composite samples of final effluent from outfall 001 in accordance with Part 1.A. of this permit. The acute tests to use are:

48 Hour Static Acute test using Americamysis bahia and  
48 Hour Static Acute test using Cyprinodon variegatus

These acute tests shall be performed with a minimum of 5 dilutions, derived geometrically, for the calculation of a valid  $LC_{50}$ . Express the results as  $TU_a$  (Acute Toxic Units) by dividing  $100/LC_{50}$  for reporting. Both species should be analyzed at the same time from the 24-hour flow-proportioned composite sample. Toxicity samples shall be taken at the same time as the other chemical parameter monitoring listed in Part 1.A. of this permit for outfall 001.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

- b. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of the effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.
- c. The test dilutions shall be able to determine compliance with the following endpoints:
- (1) Acute  $LC_{50}$  of 6% equivalent to a  $TU_a$  of 16.7
- d. All applicable data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of D.1.a. may be discontinued.

2. Reporting Schedule

The permittee shall report the results and supply **one** complete copies of the toxicity test report to the Tidewater Regional Office in accordance with the schedule below. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chain of custodies.

(a)	Conduct first annual TMP test for outfall 001 using <u>Americamysis bahia</u> and <u>Cyprinodon variegatus</u>	By December 31, 2014
(b)	Submit results of all biological tests	By the 10 <sup>th</sup> of the month following sampling but no later than January 10, 2015
(c)	Conduct subsequent annual TMP tests for outfall 001 using <u>Americamysis bahia</u> and <u>Cyprinodon variegatus</u>	By December 31, 2015, 2016, and 2017
(d)	Submit subsequent annual biological tests	By the 10 <sup>th</sup> of the month following sampling but no later than January 10, 2016, 2017, and 2018



ATTACHMENT 9

RECEIVING WATERS INFO./  
TIER DETERMINATION/STORET DATA/  
STREAM MODELING

303(d) LISTED SEGMENTS

# Planning Permit Review

**Date:** 5/4/2012

**To:** Jen Howell for Kristie Britt, TRO

**Permit Writer:** Deanna Austin

**Facility:** HRSD-Boat Harbor STP

**Permit Number:** VA0081256

**New or Renewal:** Renewal

**Permit Expiration Date:** 1/27/2013

**Waterbody ID:** VAT G15 E Hampton Roads Proper for Outfall 001

**Topo Name:** 035B Newport News South

**Facility Address** 300 Terminal Ave Newport News, VA 23607

## Receiving Stream:

<b>Stream Name:</b> James River-Outfall 001	
Stream Data Requested for pH, Temp and Salinity Last 2 years <input checked="" type="checkbox"/> See Attachment 2	
Stream Data Requested?	
Outfall #: 001	Lat Lon: 36 57 25 76 24 43
Stream Name (2): Click here to enter text.	
All stormwater outfalls are not monitored-No Exposure Certifications have been given-No need for a tier determination	
Stream Data Requested? Click here to enter text.	

## Planning Review:

<b>303 (d): Indicate Outfalls which discharge directly to an impaired (Category 5) stream segment</b>	
Outfall 001 discharges to impaired segment VAT-G15E_JMS05A06. Impairments include Chl a, DO, estuarine benthics, and PCBs (Attachment 1)	
Click here to enter text.	
<b>Tier Determination</b>	
Tier	The receiving stream is a Tier 1 water due to the impairments. See Attachment 1
Tier	
<b>Management Plan</b>	
Is the facility Referenced in a Management Plan?	Yes, this facility is listed in the Virginia Water Quality Management Plan (VAC25-720-60C)
Are limits contained in a Management Plan?	Yes: TN 740,000 lbs/yr and TP 76,139 lbs/yr

**Review will be completed in 30 days of receipt of request.**

## Additional Comments:

JSH 5/17/2012



## 2010 Impaired Waters - 303(d) List

### Category 5 - Waters needing Total Maximum Daily Load Study

#### James River Basin

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
<b>G09R-02-BAC</b>	Diascund Creek						
Recreation	Escherichia coli	5A			6.88	2008	2020
<b>G09R-02-DO</b>	Diascund Creek						
Aquatic Life	Oxygen, Dissolved	5C			6.88	2008	2020
→ <b>G10E-04-CHLA</b>	James River - Lower						
Aquatic Life	Chlorophyll-a	5A	126.390			2008	2010
	Chlorophyll-a	5A	0.782			2010	2010
Open-Water Aquatic Life	Chlorophyll-a	5A	126.390			2008	2010
	Chlorophyll-a	5A	0.782			2010	2010
<b>G10E-05-EBEN</b>	James River Mainstem - Chickahominy R. to Hog Point						
Aquatic Life	Estuarine Bioassessments	5A	26.128			2004	2016
<b>G10E-06-BAC</b>	College Creek						
Recreation	Enterococcus	5A	0.568			2006	2018
<b>G10R-01-BAC</b>	College Run						
Recreation	Fecal Coliform	5A			2.39	2002	2014
<b>G10R-02-BEN</b>	Powhatan Creek						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			5.35	2002	2014
<b>G10R-03-DO</b>	Dark Swamp, UT (XHC)						
Aquatic Life	Oxygen, Dissolved	5A			1.30	2010	2022
→ <b>G11E-05-EBEN</b>	James River - Hog Point Downstream to West side of Craney Island						
Aquatic Life	Estuarine Bioassessments	5A	24.428			2006	2018
	Estuarine Bioassessments	5A	73.889			2010	2022
<b>G11E-17-SF</b>	Ballard Creek & Bay, James River - Ballard Swamp Area and Kings Creek & Bay						
Shellfishing	Fecal Coliform	5B	0.096			1998	2010
	Fecal Coliform	5B	0.068			2010	2022
<b>G11E-18-SF</b>	Tylers Beach Boat Basin						
Shellfishing	Fecal Coliform	5B	0.003			2004	2016
<b>G11E-19-SF</b>	James River - Outside Chuckatuck Creek						
Shellfishing	Fecal Coliform	5B	0.564			2010	2022
<b>G11L-01-CU</b>	Lee Hall Reservoir						
Aquatic Life	Copper	5A		290.06		2004	2016
Wildlife	Copper	5A		290.06		2004	2016
<b>G11L-01-DO</b>	Lee Hall Reservoir						
Aquatic Life	Oxygen, Dissolved	5A		290.06		2006	2018
<b>G11L-01-HG</b>	Lee Hall Reservoir						
Fish Consumption	Mercury in Fish Tissue	5A		290.06		2010	2022
<b>G11L-01-PCB</b>	Lee Hall Reservoir						
Fish Consumption	PCB in Fish Tissue	5A		290.06		2010	2022



## 2010 Impaired Waters - 303(d) List

### Category 5 - Waters needing Total Maximum Daily Load Study

#### James River Basin

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
<b>J16R-02-PH</b>	Blackman Creek						
Aquatic Life	pH	5C			4.45	2004	2016
<b>J17L-01-DO</b>	Swift Creek Lake						
Aquatic Life	Oxygen, Dissolved	5A		102.42		2006	2018
<b>J17R-01-BEN</b>	Swift Creek						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			7.10	2010	2022
<b>J17R-01-DO</b>	Swift Creek						
Aquatic Life	Oxygen, Dissolved	5A			7.10	2002	2014
<b>J17R-03-PH</b>	Franks Branch						
Aquatic Life	pH	5C			10.02	2006	2018
<b>J17R-05-PH</b>	Church Branch						
Aquatic Life	pH	5C			2.56	2010	2022
<b>J17R-06-DO</b>	Nuttree Branch						
Aquatic Life	Oxygen, Dissolved	5C			5.31	2010	2022
<b>J17R-06-PH</b>	Nuttree Branch						
Aquatic Life	pH	5C			5.31	2010	2022
<b>J17R-07-PH</b>	Second Branch						
Aquatic Life	pH	5C			5.84	2010	2022
<b>J17R-08-DO</b>	Swift Creek						
Aquatic Life	Oxygen, Dissolved	5A			3.66	2010	2022
<b>J17R-09-BEN</b>	Swift Creek						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.79	2010	2022
<b>J17R-10-PH</b>	Timsbury Creek						
Aquatic Life	pH	5C			6.65	2010	2022
<b>J17R-11-PH</b>	Long Swamp						
Aquatic Life	pH	5C			3.65	2010	2022
<b>JMSMH-DO-BAY</b>	James River CBP segment JMSMH and Tidal Tributaries						
Aquatic Life	Oxygen, Dissolved	5A	100.143			1998	2010
	Oxygen, Dissolved	5A	18.371			2006	2010
Open-Water Aquatic Life	Oxygen, Dissolved	5A	100.143			1998	2010
	Oxygen, Dissolved	5A	18.371			2006	2010
<b>JMSOH-DO-BAY</b>	James River CBP segment JMSOH and Tidal Tributaries						
Aquatic Life	Oxygen, Dissolved	5A	48.740			2006	2010
Open-Water Aquatic Life	Oxygen, Dissolved	5A	2.212			2006	2010
<b>JMSPH-BNUT-BAY</b>	James River CBP segment JMSPH and Tidal Tributaries						
Aquatic Life	Nutrient/Eutrophication Biological Indicators	5A	25.011			2010	2010



# 2010 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### James River Basin

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
<b>APPTF-SAV-BAY</b>	Appomattox River						
Aquatic Life	Aquatic Plants (Macrophytes)	5A	2.705			2006	2010
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants (Macrophytes)	5A	2.705			2006	2010
<b>EBEMH-DO-BAY</b>	Eastern Branch Elizabeth River, Broad Creek and Indian River						
Aquatic Life	Oxygen, Dissolved	5A	2.287			2006	2010
Open-Water Aquatic Life	Oxygen, Dissolved	5A	2.287			2006	2010
<b>ELIPH-DO-BAY</b>	Chesapeake Bay segment ELIPH (Elizabeth River Mainstem)						
Aquatic Life	Oxygen, Dissolved	5A	8.162			2006	2010
Open-Water Aquatic Life	Oxygen, Dissolved	5A	8.162			2006	2010
<b>G01E-01-BAC</b>	James River						
Recreation	Escherichia coli	5A	1.466			1996	2010
	Escherichia coli	5A	2.828			2006	2010
	Escherichia coli	5A	1.964			2008	2010
<b>G01E-02-CHLA</b>	James River						
Aquatic Life	Chlorophyll-a	5A	5.512			2008	2010
Open-Water Aquatic Life	Chlorophyll-a	5A	5.512			2008	2010
→ <b>G01E-03-PCB</b>	James River and Various Tributaries						
Fish Consumption	PCB in Fish Tissue	5A	62.773			2002	2014
	PCB in Fish Tissue	5A	1.837			2004	2016
	PCB in Fish Tissue	5A	191.816			2006	2018
	PCB in Fish Tissue	5D			7.50	2006	2018
	PCB in Fish Tissue	5A	0.012			2008	2014
	PCB in Fish Tissue	5A	0.003			2010	2018
<b>G01L-01-BAC</b>	Falling Creek Reservoir						
Recreation	Escherichia coli	5A		88.37		2008	2020
<b>G01L-01-PH</b>	Falling Creek Reservoir						
Aquatic Life	pH	5C		88.37		2010	2022
<b>G01R-01-BAC</b>	Goode Creek						
Recreation	Escherichia coli	5A			1.25	2006	2014
<b>G01R-02-BAC</b>	Almond Creek						
Recreation	Escherichia coli	5A			2.36	2006	2010
<b>G01R-02-PH</b>	XVO and XVP (Almond Creek, UTs)						
Aquatic Life	pH	5A			0.54	2004	2016
<b>G01R-03-BAC</b>	Falling Creek						
Recreation	Escherichia coli	5A			3.11	2006	2014
<b>G01R-04-BAC</b>	Falling Creek						
Recreation	Escherichia coli	5A			16.99	2006	2018
<b>G01R-04-DO</b>	Falling Creek						
Aquatic Life	Oxygen, Dissolved	5A			0.98	2008	2020

# Appendix A - List of Impaired (Category 5) Waters in 2010

## James River Basin

**Cause Group Code:** G10E-04-CHLA

**James River - Lower**

**Location:** The mainstem of the James River within the Mesohaline and Polyhaline portions of the James Estuary.

**City / County:** Hampton City      Isle Of Wight Co.      James City Co.      Newport News City      Norfolk City  
Portsmouth City      Suffolk City      Surry Co.

**Use(s):** Aquatic Life      Open-Water Aquatic Life

**Cause(s) /**

**VA Category:** Chlorophyll-a / 5A

The Chlorophyll a - Spring criteria for Plankton failed for the 2008 assessment. The Chlorophyll a - Summer criteria is meeting for the 2008 assessment period.

James River - Lower

Aquatic Life

Estuary  
(Sq. Miles)

Reservoir  
(Acres)

River  
(Miles)

Chlorophyll-a - Total Impaired Size by Water Type: 127.172

James River - Lower

Open-Water Aquatic Life

Estuary  
(Sq. Miles)

Reservoir  
(Acres)

River  
(Miles)

Chlorophyll-a - Total Impaired Size by Water Type: 127.172

**Sources:**

Industrial Point Source  
Discharge

Municipal Point Source  
Discharges

Non-Point Source

# Appendix A - List of Impaired (Category 5) Waters in 2010

## James River Basin

**Cause Group Code:** G11E-05-EBEN

**James River - Hog Point Downstream to West side of Craney Island**

**Location:** This cause encompasses the James River Mainstem, from area of Hog Point (coincident with the CBP segment JMSMH line) downstream to West side of Craney Island (coincident with the end of CBP segment JMSMH. CBP segment JMSMH.

**City / County:** Isle Of Wight Co. James City Co. Newport News City Portsmouth City Suffolk City  
Surry Co.

**Use(s):** Aquatic Life

**Cause(s) /**

**VA Category:** Estuarine Bioassessments / 5A

The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis. The source/stressor tool yielded an unknown source for the impairment.  
The TMDL due date is 2022.

---

James River - Hog Point Downstream to West side of Craney Island  
Aquatic Life

Estuary  
(Sq. Miles)

Reservoir  
(Acres)

River  
(Miles)

Estuarine Bioassessments - Total Impaired Size by Water Type:

**98.316**

---

Sources:

Source Unknown

# Appendix A - List of Impaired (Category 5) Waters in 2010

## James River Basin

**Cause Group Code:** JMSMH-DO-BAY

**James River CBP segment JMSMH and Tidal Tributaries**

**Location:** This cause encompasses the entirety of the James River CBP segment JMSMH and tidal tributaries. From start of JMSMH salinity boundary (Hog Island Creek) downstream to line between Blunt Point NN) /Goodwin Pt. (Isle of Wight). CBP segment JMSMH.

**City / County:** Isle Of Wight Co. James City Co. Newport News City Portsmouth City Suffolk City  
Surry Co.

**Use(s):** Aquatic Life Open-Water Aquatic Life

**Cause(s) /**

**VA Category:** Oxygen, Dissolved / 5A

The Aquatic Life and Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. The 30-day dissolved oxygen criteria for Open Water Use failed for the 2008 assessment. There is insufficient data to assess remaining shorter-term dissolved oxygen criteria for this use. The mainstem James River was included in EPA's 1998 303(d) Overlisting as impaired of the Aquatic Life Use; the impairment was attributed to excessive nutrients. During the 2006 cycle, the revised Chesapeake Bay water quality standards were adopted.

1998 CD segment for nutrients (Attachment A, Category 1, Part 2) VAT-G10E-04.

James River CBP segment JMSMH and Tidal Tributaries

**Aquatic Life**

Oxygen, Dissolved - Total Impaired Size by Water Type:

Estuary  
(Sq. Miles)

Reservoir  
(Acres)

River  
(Miles)

**118.514**

James River CBP segment JMSMH and Tidal Tributaries

**Open-Water Aquatic Life**

Oxygen, Dissolved - Total Impaired Size by Water Type:

Estuary  
(Sq. Miles)

Reservoir  
(Acres)

River  
(Miles)

**118.514**

Sources:

Agriculture

Atmospheric Deposition -  
Nitrogen

Industrial Point Source  
Discharge

Internal Nutrient Recycling

Loss of Riparian Habitat

Municipal Point Source  
Discharges

Sources Outside State  
Jurisdiction or Borders

Wet Weather Discharges  
(Non-Point Source)

Wet Weather Discharges  
(Point Source and  
Combination of Stormwater,  
SSO or CSO)



# Appendix A - List of Impaired (Category 5) Waters in 2010

## James River Basin

**Cause Group Code:** G01E-03-PCB

### James River and Various Tributaries

**Location:** Estuarine James River from the fall line to the Hampton Roads Bridge Tunnel, including several tributaries listed below: Appomattox River up to Lake Chesdin Dam  
Bailey Creek up to Route 630  
Bailey Bay  
Chickahominy River up to Walkers Dam  
Skiffes Creek up to Skiffes Creek Dam  
Pagan River and its tributary Jones Creek  
Chuckatuck Creek  
Nansemond River and its tributaries Bennett Creek and Star Creek  
Hampton River  
Willoughby Bay and the Elizabeth R. system (Western, Eastern, and Southern Branches and Lafayette R.) and tributaries St. Julian Creek, Deep Creek, and Broad Creek

<b>City / County:</b>	Charles City Co.	Chesapeake City	Chesterfield Co.	Colonial Heights City	Dinwiddie Co.
	Hampton City	Henrico Co.	Hopewell City	Isle Of Wight Co.	James City Co.
	New Kent Co.	Newport News City	Norfolk City	Petersburg City	Portsmouth City
	Prince George Co.	Richmond City	Suffolk City	Surry Co.	Virginia Beach City
	Williamsburg City				

**Use(s):** Fish Consumption

**Cause(s) /**

**VA Category:** PCB in Fish Tissue / 5A

PCB in Fish Tissue / 5D

The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs fish tissue contamination within the James River and select tidal tributaries, issued 12/13/04. During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations.

During the 2004 cycle, a VDH Fish Consumption Restriction was issued from the fall line to Flowerdew Hundred and the segment was adjusted slightly to match the Restriction.

However, during the 2006 cycle, the restriction was extended on 12/13/2004 to extend from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel and include the tidal portions of the following tributaries:

Appomattox River up to Lake Chesdin Dam  
Bailey Creek up to Route 630  
Bailey Bay  
Chickahominy River up to Walkers Dam  
Skiffes Creek up to Skiffes Creek Dam  
Pagan River and its tributary Jones Creek  
Chuckatuck Creek  
Nansemond River and its tributaries Bennett Creek and Star Creek  
Hampton River  
Willoughby Bay and the Elizabeth R. system (Western, Eastern, and Southern Branches and Lafayette R.) and tributaries St. Julian Creek, Deep Creek, and Broad Creek

## *Appendix A - List of Impaired (Category 5) Waters in 2010*

### James River Basin

The advisory was modified again on 10/10/2006 to add Poythress Run.

James River and Various Tributaries	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
<b>Fish Consumption</b>			
PCB in Fish Tissue - Total Impaired Size by Water Type:	<b>256.441</b>		<b>7.50</b>

#### Sources:

Contaminated Sediments

Source Unknown

Sources Outside State  
Jurisdiction or Borders

## TMDL Permit Review

Date: 5/4/2012

To: Jennifer Howell, TRO      ✓ JSH 5/17/2012

Permit Writer: Deanna Austin

Facility: HRSD-Boat Harbor STP

Permit Number: VA0081256

New or Renewal: Renewal

Permit Expiration Date: 1/27/2013

Waterbody ID: VAT G15 E Hampton Roads Proper for Outfall 001

Topo Name:                035 B Newport News South

Facility Address 300 Terminal Ave Newport News, VA 23607

### Receiving Stream:

<b>Stream Name:</b> James River-Outfall 001	
Click here to enter text.	
<b>Stream Data Requested? YES: See Planning Sheet</b>	
<b>Outfall #:</b> 001	<b>Lat Lon:</b> 36 57 25   76 24 43
<b>Stream Name (2):</b> Click here to enter text.	
<b>All stormwater outfalls are not monitored-No Exposure Certifications have been given</b>	
<b>Stream Data Requested?</b> Click here to enter text.	

Is there a design flow change? If yes give the change. No change

### TMDL Review:

<b>Has a TMDL been approved that includes the receiving stream?</b>	
Yes, the receiving stream falls within Chesapeake Bay segment JMSMH	
<b>If yes, Include TMDL Name, Pollutant(s) and date of approval:</b>	
Chesapeake Bay TMDL: EPA approved 21/29/2010: nitrogen, phosphorous, and TSS	
<b>Is the facility assigned a WLA from the TMDL?</b>	No
<b>If Yes, what is the WLA?</b>	
VA0081256 was listed in the Chesapeake Bay TMDL under Bay segment JMSMH as a non-significant discharger. Because an aggregated WLA exists, this permit did not receive an individual WLA. The aggregated WLA is presented as a delivered load for each of the impaired 92 Bay segments. (Appendix Q)	

Review will be completed in 30 days of receipt of request.

### Additional Comments:

A PCB TMDL for the tidal James River has an anticipated completion date of 2014.
--

ATTACHMENT 10

TABLE III(a) AND TABLE III(b) -  
CHANGE SHEETS

TABLE III(a)

VPDES PERMIT PROGRAM  
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL

F OTHER CHANGES:	COMMENTS:	DATE & INITIAL
Changed boilerplate language to include the VELAP information		5/25/12 DDA
Changed special condition C.11 (Sludge Management Plan) to not have a VDH reference since they no longer are involved in the program.		5/25/12 DDA
QL changed for BOD from 5 mg/l to 2 mg/l.	Changed to be consistent with other HRSD permits.	5/25/12 DDA

TABLE III(b)

VPDES PERMIT PROGRAM  
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL

ATTACHMENT 11

EPA PERMIT CHECKLIST

**State "Transmittal Checklist" to Assist in Targeting  
Municipal and Industrial Individual NPDES Draft Permits for Review**

**Part I. State Draft Permit Submission Checklist**

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name: HRSD-Boat Harbor STP

NPDES Permit Number: VA0081256

Permit Writer Name: Deanna Austin

Date: 5/25/12

Major [X]                      Minor [ ]                      Industrial [ ]                      Municipal [X]

**I.A. Draft Permit Package Submittal Includes:**

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?		X	
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?	X		
9. Permit Rating Sheet for new or modified industrial facilities?			X

**I.B. Permit/Facility Characteristics**

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		

**I.B. Permit/Facility Characteristics - cont.**

	Yes	No	N/A
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	



6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet <b>or</b> permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?	X		
a. Has a TMDL been developed and approved by EPA for the impaired water?	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?	X		
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

## Part II. NPDES Draft Permit Checklist

### Region III NPDES Permit Quality Checklist – for POTWs (To be completed and included in the record only for POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

<u>II.B. Effluent Limits - General Elements</u>	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "ant backsliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

<b>II.C. Technology-Based Effluent Limits (POTWs)</b>	Yes	No	N/A
1. Does the permit contain numeric limits for <u>ALL</u> of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

<u>II.D. Water Quality-Based Effluent Limits</u>	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?			X

<b>II.D. Water Quality-Based Effluent Limits – cont.</b>	Yes	No	N/A
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?			X
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?	X		

e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?			X
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?		X	
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

#### II.E. Monitoring and Reporting Requirements

	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?	X		

#### II.F. Special Conditions

	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?	X		
2. Does the permit include appropriate storm water program requirements?	X		

#### **II.F. Special Conditions – cont.**

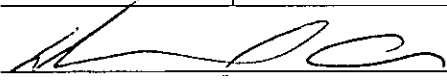
	Yes	No	N/A
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?		X	
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?		X	
a. Does the permit require implementation of the "Nine Minimum Controls"?			X
b. Does the permit require development and implementation of a "Long Term Control Plan"?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?	X		

II.G. Standard Conditions

	Yes	No	N/A			
1. Does the <b>permit</b> contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X					
<b>List of Standard Conditions – 40 CFR 122.41</b> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 33%;"> Duty to comply  Duty to reapply  Need to halt or reduce activity      not a defense  Duty to mitigate  Proper O &amp; M  Permit actions </td> <td style="vertical-align: top; width: 33%;"> Property rights  Duty to provide information  Inspections and entry  Monitoring and records  Signatory requirement  Bypass  Upset </td> <td style="vertical-align: top; width: 33%;"> Reporting Requirements  Planned change  Anticipated noncompliance  Transfers  Monitoring reports  Compliance schedules  24-Hour reporting  Other non-compliance </td> </tr> </table>				Duty to comply Duty to reapply Need to halt or reduce activity not a defense Duty to mitigate Proper O & M Permit actions	Property rights Duty to provide information Inspections and entry Monitoring and records Signatory requirement Bypass Upset	Reporting Requirements Planned change Anticipated noncompliance Transfers Monitoring reports Compliance schedules 24-Hour reporting Other non-compliance
Duty to comply Duty to reapply Need to halt or reduce activity not a defense Duty to mitigate Proper O & M Permit actions	Property rights Duty to provide information Inspections and entry Monitoring and records Signatory requirement Bypass Upset	Reporting Requirements Planned change Anticipated noncompliance Transfers Monitoring reports Compliance schedules 24-Hour reporting Other non-compliance				
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	X					

### Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Deanna Austin</u>
Title	<u>Environmental Specialist Senior II</u>
Signature	<u></u>
Date	<u>5/25/12</u>

ATTACHMENT 12

CHRONOLOGY SHEET

# Chronology

Friday, May 25, 2012

Facility Name: HRSD - Boat Harbor Sewage Treatment Plant

VA0081256

<i>Event</i>	<i>Date</i>	<i>Comment</i>
Application fee deposited:	—	NA-Reissuance
Comments rec'd from State Agencies on App:	—	5/10/12 VDH
First Application Reminder Phone Call:	—	NA-App received 5/3/12
Second Application Reminder Phone Call:	—	NA-App received 5/3/12
VDH concurrence on draft permit:	—	NA-Not Requested
Site visit:	— 5/6/2011	
Site inspection report:	— 5/12/2011	
Application received at RO 1st time:	— 5/3/2012	
Public notice authorization received from owner:	— 5/3/2012	
App complete letter sent to permittee:	— 5/4/2012	
App sent to State Agencies (list in comment field):	— 5/4/2012	VDH, DSS, VMRC
Application Administratively complete:	— 5/4/2012	
Application totally / technically complete:	- 5/4/2012	
Draft permit developed:	— 5/25/2012	
Old expiration date:	— 1/27/2013	
Permit effective:	— 1/27/2013	
First DMR due:	— 3/10/2013	
Permit expires:	— 1/28/2018	